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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY  
Mitchell Bros. Company.  
(INCORPORATED.)

Vol. III.

CHICAGO, ILLINOIS, AUGUST 15, 1884.

No. 2.

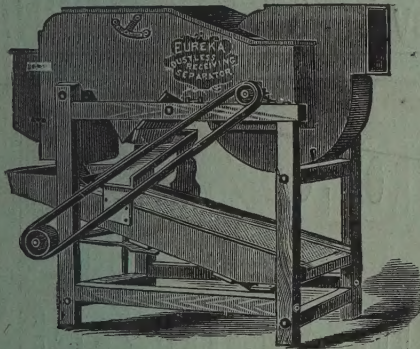
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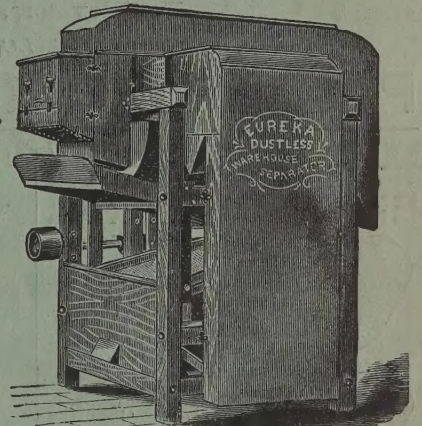
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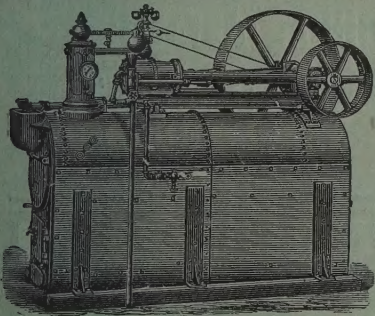
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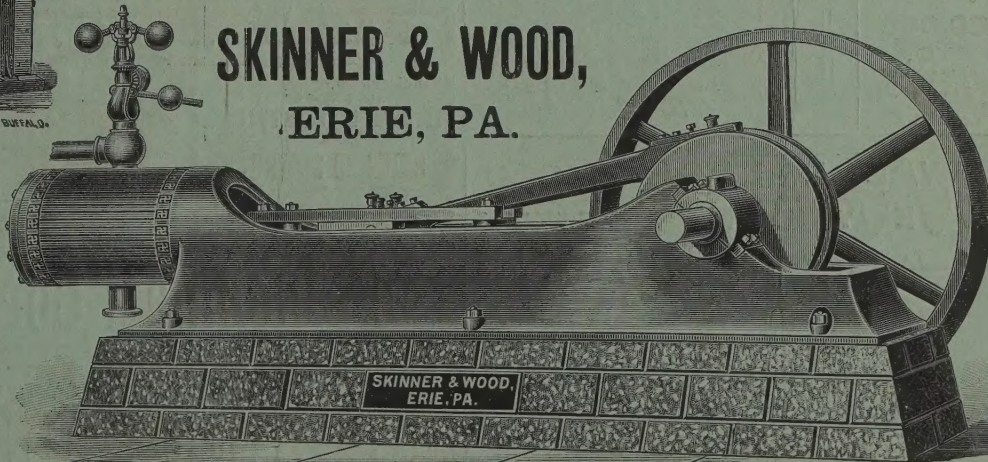
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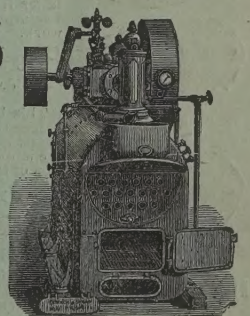
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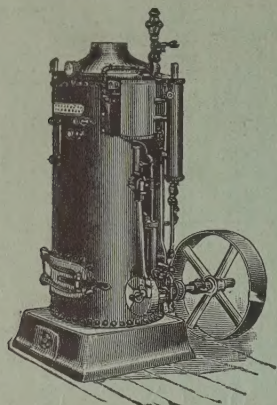
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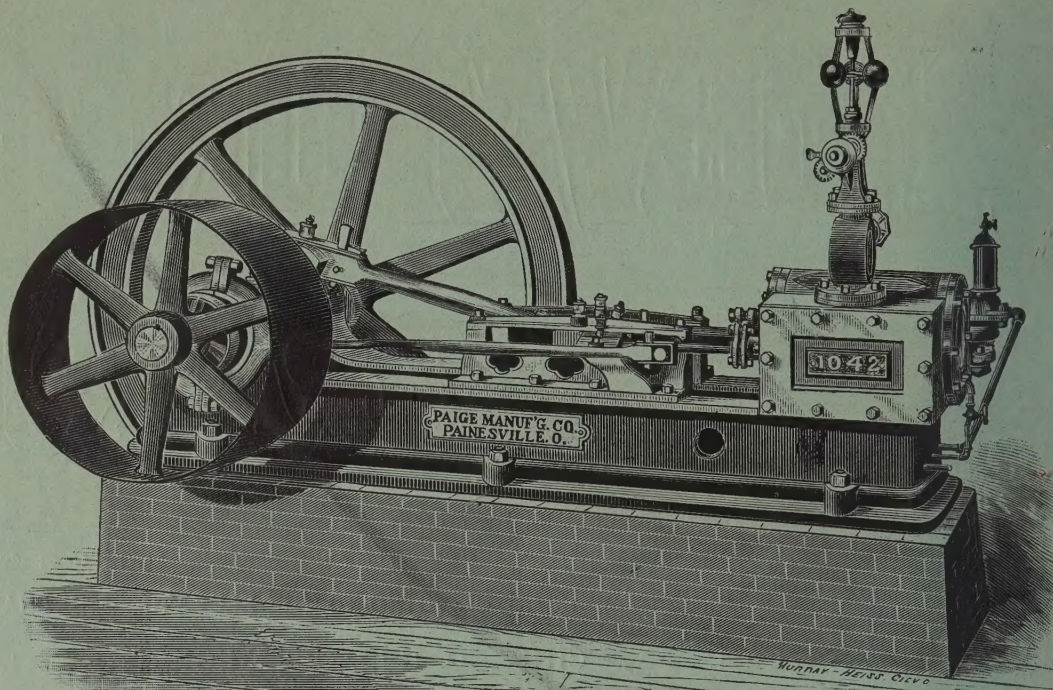
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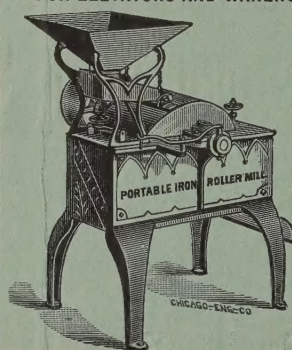
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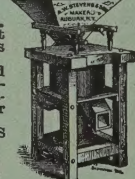
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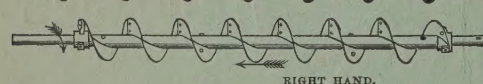
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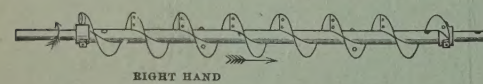
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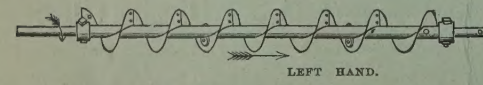
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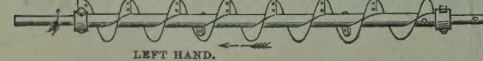
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RIGHT HAND



LEFT HAND.



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### THE HESSIAN FLY.

One of the most persistent of the insect pests that harass the wheat plant is the so-called Hessian Fly (*Cecidomyia Destructor*), or the Fly, as it is sometimes called, by way of giving it pre-eminence. The common legend derives the name of the insect from the Hessian troops who assisted the British in our War of Independence. It is supposed that the Hessian allies brought it over with them in the straw which they used. No country covets the distinction of originating the things that plague mankind, and hence it was only natural that in the excess of their hatred for the hirelings of Hesse Cassel the Americans should have perpetuated their name in that of this destructive little pest. To have called it a Saxon fly would have impeached their own ancestry.

But wherever the fly came from, it was first noticed on Long Island in 1876, and since that time has steadily followed the course of settlement to the West, at about the rate of twenty miles a year. Unlike grasshoppers and the army worm, however, it does not follow a certain track, but makes its appearance in a certain locality, continues its ravages for several continuous seasons, disappears from the district, and then reappears in the same place after a couple of years. It has never, we believe, attacked the wheat throughout the country; but every year it does more or less damage in different places, as in the present year.

The head and thorax of the female fly, as shown in our engraving at 2, 2, magnified and natural size, are black. The antennae are about half as long as the body, and composed of sixteen joints, each of a cylindric oval form, the length being about double the diameter; each joint is clothed with a number of hairs, surrounding it in a whorl. The thorax is oval and black; the poisers are dusky. The abdomen is of a dark color above, more or less widely marked at the joints with tawny, fulvous lines, and furnished with numerous fine blackish hairs. The wings are slightly dusky. The legs are pallid brown, the tarsi black. The several pairs of legs equal each other in length, being about one-fifth of an inch long when extended. The male is shown in 1, 1, in its natural and magnified size. The antennae are three-fourths the length of the body. The abdomen consists of seven joints besides the terminal one, which consists of a transversely oval joint, giving off two robust processes, armed with incurved hooks at the tips. In the living specimen the abdomen is of a brownish-black color, more or less widely marked at the joints with whitish hues. In all other points the male coincides with the female in its character.

The female deposits her eggs upon the young wheat leaves in September and May, between the minute ridges of the blade. They appear as minute reddish spots, and are cylindrical in shape, being about one-

fiftieth of an inch in length, and two hundred and fiftieth in width. The eggs laid in the autumn hatch in a week, if the weather be warm, or two or three weeks if cold and unfavorable, and produce white maggots, which pass down the leaf, between the sheath and the stem, until it reaches the first joint or crown, and remains fixed upon the stem, head downward, until it assumes the pupa form.

The young fall wheat attacked by these maggots withers next spring, while others proceeding from the same root will remain unaffected, and this death is caused by the nutritious juice being abstracted from the shoot.

The spring-hatched maggots attach themselves to the second or third joint of the plant, which is better able to resist their injurious influence. The maggots seem to



THE HESSIAN FLY—(*Cecidomyia Destructor*.)

live by suction alone, as they do not penetrate the stalk, and the injury they cause to summer wheat seems to be by their pressure between the leaf and inclosed stem, preventing the circulation of sap, and the deposition of silica, upon which the strength of the wheat straw and its ability to resist winds, etc., greatly depends. Sometimes a swelling or gall is produced by their presence. Those varieties of wheat which have a naturally strong tendency to the deposition of silica, and the formation of a hard, flinty stock, have been found to resist the attacks of the fly best, and for the reason that they are better able to resist breaking by the winds. The fall-deposited egg hatches out a maggot which makes its way down the stem, and is soon transformed into a dormant larva, surrounded by a case formed of the skin. This pupa is seen magnified at 4 and 6. A magnified dorsal view of the active worm or larva is given at 3, and a lateral view of the same at 5. When spring arrives, the dormant larva becomes transformed into a pupa, or chrysalide, and after remaining in this position ten or twelve days, the pupa-case bursts and the perfect insect emerges, about the flowering-time of the early spring flowers. The larvae of the Hessian fly have by their capacity to pass into the dormant larva condition a great

power to resist extremes of temperature and atmospheric changes during the winter; how they resist, like other pupae, the tendency to freeze during the intense cold of our Northern winters, is a mystery; but that they do so may be determined by examining the partially developed pupa, which will be found flexible, as in the case with the pupae of some other insects which have been found unfrozen, although the temperature had sunk to many degrees below the freezing point. The progeny of the fall fly which have passed the winter in repose upon the stalks of the wheat, in the spring become developed into the perfect insect state, and then make a new deposit of eggs upon the same stalk which gave them lodgment during the winter, or the neighboring ones, but upon leaves a little higher up, as the radial leaves are now more or less withered. The worm hatches, makes its way to the base of the leaf of the first or second joint, where it does not so greatly injure the plant, but that it may become well developed; but a slight swelling usually points out its place of rest. Commonly, however, the stalk bends or breaks, and gives a badly infested field an appearance as though a herd of cattle had run through it. The worm attains its growth about the first of June, becomes a pupa, and undergoes its transformation to the perfect state, and emerges a complete fly during the last of July or first of August, to re-commence its depredations upon the fall wheat.

### CORN CULTURE.

Corn, which has been cultivated in America for over 250 years, in almost every kind of soil, climate, and by various methods, is acknowledged to be the most valuable of all our cereals, although the special qualities of wheat rank it at the head. Under present methods of cultivation, forty bushels per acre, or eight barrels, is a high estimate for the average yield. But the soil capacity has been proven, by the results of extended trials, to be equal to eighty bushels, and many cases are reported of a yield of over one hundred bushels per acre, on considerable tracts of land. Mr. A. Cox, of Selma, Ala., is said to have raised, on one acre, two hundred and six bushels, the largest reputed yield of this country. Good seed is recognized to be one of the most important factors in the successful production of corn, amounting at times to 50 per cent. difference. While corn is not a profitable crop for foreign exportation, its extensive food use in the South, and as feed for hogs and cattle universally, gives it a permanent and large value. There ought then, to be, by means of higher cultivation, a yield obtained of some eighty bushels per acre. The high yields mentioned above were obtained in the use of fertilizers. Seed should be carefully selected, and seed corn should be planted apart from the general crop, and be attended to with the utmost care, freeing it entirely from weeds and inferior specimens.



## A FRENCHMAN ON CHICAGO ELEVATORS.

Mr. Gourdelet, in a late address before the French Society of Commercial Geography, thus spoke of the elevators of Chicago, while recounting the commercial greatness of the Garden City: "Chicago is not, properly speaking, an industrial city; it is a commercial city of the first rank. You have heard of the inauguration last year, at Bordeaux of a floating grain elevator. The minister of public works was present at the solemnity, and some speeches were made. This must have amused the Americans, for they had fifteen grain elevators at Chicago in 1873, and there are now twenty-four. I wish to say a word to you about these grain elevators. The cereals of the great American prairies arrive by the canals or by the railways at Chicago; they are not put into bags as is done by us, but are shipped in bulk, in cars specially constructed for this purpose, and whole trains are thus made up which are sent to the great markets of the country. These trains, thus loaded, are transported to the grain-elevators, which are immense wooden constructions of eleven or twelve stories. The grain is lifted (not by porters, whom we see in France, but by a system of endless belts furnished with cups) to the top of the elevator, and from there it is poured into the great store-rooms, the floors of which are furnished with valves, to which are fitted the wooden spouts. When a vessel is to be loaded they open this valve and the grain contained in the store-room flows directly into the hold of the ship. In this way they load a vessel in seven hours.

"Now, how is this great commerce conducted? Not at all as it is done in France. In France it involves a great loss of time. The peasant arrives at the market of the city with his little bags of samples, which he submits to the buyer. He disputes, he praises his merchandise, and usually the bargaining is done at the cafe, and the transactions are concluded between two or more glasses of beer. Gentlemen, this belongs to another age; it is the old regime. But how is all this done in America, do you ask? This is how: An inspector comes, appointed by the Board of Trade; he examines the grain, he classifies it, and says to the proprietor: 'This grain is class No. 2, or class No. 3.' If the proprietor does not accept it he is at liberty to keep his grain. Generally they reach an agreement. The grain classified, the inspector adds: 'How much of it have you?' 'Three hundred and fifty thousand hectoliters.' 'Very well, here is a check for 350,000 No. X, on such an elevator.' As the grower is a speculator (every man is a speculator in America) with his check he goes to the produce exchange and he speculates, he trades, he gambles with his grain; he sells it and rebuys it perhaps twenty times. All the grain, once classified, being stored in the elevator, together with other lots of corresponding grade, it is no longer his own grain which the producer sells; he has been liberated from all care of storage, of handling, etc. It is a merchandise, the value of which is represented by the checks which have been given to him, and which represent the quantity and the quality delivered. This is how they manage the grain business. It is, therefore, not astonishing that the Americans have need of the telephone, and for all the means at the command of active humanity."

## WHEAT SUPPLIES IN CALIFORNIA.

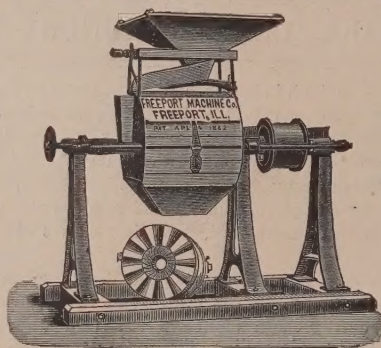
The Secretary of the San Francisco (Cal.) Produce Exchange, reporting as to the reserves from the old crop of wheat in that state on July 1 of this year, as compared with the same date in 1883, places them respectively at 1,610,650, wheat and flour and 1,979,000 bushels, or a decrease of 368,805 bushels. The exports of wheat in the year ended July 1, 1884, were 753,227 tons, of 2,000 pounds each, which, with the reserve stated above, indicates that the surplus of 1883-84 was about 800,000 tons or some 27,000,000 bushels. On July 1, 1883, sealed envelopes were opened from twenty leading grain firms in San Francisco, which contained estimates of the surplus varying from about 900,000 to 1,500,000 tons, all but two being above 1,000,000, and twelve above 1,200,000 tons, showing an extravagant tendency in these calculations. The present general estimate of the California wheat crop is 54,000,000 bushels; with their increase of acreage and yield Oregon and Washington Territory should respectively turn out 16,000,000 and 5,000,000 bushels, aggregating for the Pacific Coast 75,000,000 bushels. De-

ducting five bushels per capita for the 1,000,000 inhabitants, and for seeding, say, 5,000,000 acres, there would remain 62,500,000 bushels for export. But the *N. Y. Produce Exchange Reporter* remarks that the largest exports of wheat ever made from that section, which was in 1881-82, amounted to only 46,000,000 bushels, falling off the next year to 32,800,000, and those of last year will barely reach 30,000,000, while the above doubtful estimates nearly doubles the latter.

## THE "UNION" FLOUR AND FEED MILL.

In our last issue we had something to say editorially of the utility of feed and meal mills as an adjunct to the business of handling grain. We give on this page an illustration of a flour, meal and feed mill, designed by the makers for just such cases as we mentioned last month. This mill, known as the "Union," is, we believe, different from other mills having the same general purpose, in that it uses annular cast steel rings in connection with the best French burr stone.

The hard steel grinding rings are placed close to the center, and are so arranged and adjusted as to crush the grain at or near the center of the grinder, and to do it with much less power because of this, as it will be observed that the grain is first broken by the hard steel rings close to the center, and afterward ground fine by the burr stones, thereby reducing the frequent necessity



THE "UNION" FLOUR AND FEED MILL.

of dressing the burr stones, as is the case in other mills.

This mill is suitable for feed, Graham flour, coarse and fine meal, etc., and is confidently offered by the manufacturers as just what elevator men, dairymen, farmers and stock-raisers need. It is claimed that this mill will do more work with less power than any mill offered to the public, the 12-inch French burr grinding from fifteen to thirty bushels of meal per hour according to the speed at which it is driven. It is in use by a large number of millers, grain men and others, and is sold at a very reasonable price. The manufacturers are the FREEPORT MACHINE CO., of Freeport, Ill., who will be glad to furnish the reader any desired particulars respecting this novel mill.

## "TRICKS WITH GRAIN."

"Junius" thus writes to the *Indiana Farmer*: "Under the above caption the *Farmer* of July 5 contains extracts from the *Grain*, the grain dealers' and millers' paper of Indianapolis. The grave charges therein contained should not pass unchallenged. While there may be a few atoms of truth in the article I must put in a general denial for the agricultural class. The charge that the 'farmer has grown careless; does not exercise care, either in selecting his seed, improving his tillage, or threshing or separating his grain,' is certainly untrue as it regards farmers generally. There is continual improvement being made in all kinds of farm machinery. Farmers are annually purchasing the latest and best implements for tilling the soil, threshing, and separating the grain. These facts are patent to every intelligent man. If the editor of the *Grain* does not know this, or, knowing it, suppresses the fact to smirch the reputation of farmers, he is certainly missing his calling. Besides, the swampy lands that formerly produced so much cheat have been tiled and become the best farm land. And farmers are taking more pains to sow clean seed (of course there may be exceptions) and to purchase from those having superior seed than at any former period. So much for the carelessness of farmers.

"Again: Many farmers make it a practice to buy millers' screenings for no other purpose than to put them

back into wheat," etc. This assertion is preposterous viewed in the light of the preceding paragraph, which says: "But the miller not only can make no commensurate use of the adulterations but is put to considerable expense separating them." Indeed! He sells screenings to the farmer in order to re-purchase the article at a loss and put to the expense of separating them from the grain. Is the miller both knave and fool?

"Further, I would like to inquire how a farmer would go about mixing screenings with the wheat in the granary? By the time he would purchase screenings and then take his wheat out of the bin and distribute systematically the adulteration so as to make it appear that all had grown together in the same crop, his screenings would cost him double the price of that number of pounds of grain. A few 'fip and a bit' farmers may have tried such a project. But where can such an adulteration be systematically accomplished? I answer, in the elevators. There it can be done to perfection by improved machinery. And since the grain dealers' organ has raised the question, I charge that that is the very place where adulteration is carried on. I obtained my information from men engaged in the grain trade. They claim that most of our wheat will scarcely grade No. 1. But is No. 2 strong? Hence many dealers purchase screenings and mix it and wheat by running them through the elevators. In some instances they happen to overdo the matter, and their wheat, on reaching the lakes or seaboard, is graded No. 3, which entails a loss. But this does not often happen to an old hand at the business.

"Some years ago a grain dealer in a country town in Indiana had rye shipped from St. Louis to his elevator and mixed it with wheat and sold the compound for No. 2 wheat. But the rye contained weevil, and it got in his elevator, and it required a few years of toil to rid the elevator of the pest.

"I believe it was either two or three years ago last May and June that wheat ruled higher in the Indianapolis market than anywhere in the Western states. The public did not understand the reason why. But Toledo had a large amount of extra No. 2 red wheat and Kansas City had a surplus of No. 3 and No. 4. So the supplies were shipped from those two cities to Indianapolis, and mixed so that the mixture graded as No. 2. It was simply putting the low grade a notch or two higher.

"Will *Grain* please tell us what it knows about such transactions? Let the responsibility rest where it belongs."

## FLAX.

A dozen years ago, says an exchange, this country held a reliable market in Great Britain for all her surplus wheat; now the latter draws some 60,000,000 bushels per annum from India and Australia alone. This should arouse our farmers to examine carefully the question of production in relation to the necessary competition, and to seek a profitable diversity of crops. Among the agricultural claimants to this examination is flax seed. It is stated that experience shows the profits of raising this seed to be greater than of any of the cereals, due to the low cost of seed, with the small amount required per acre, the ease with which it is raised, while a remunerative market has thus far been open to all the oil and residual oil cake. In the year ended June 30, 1883, our exports of linseed oil were valued at about \$3,250,000, and in the previous corresponding period a little over \$4,000,000. The fattening and milk-producing qualities of the oil cake are constantly being better appreciated; and as a flesh-producing food it is rated at 22 against 11 per cent. for corn meal, and for barley and oat meal, 13 and 18 per cent. respectively. The Iowa Agricultural College, as the results of some years' experiments, places its comparative value as a milk-producer at 145 per cent., against 80 for clover hay; 70 for wheat bran; 65 for wheat and barley, and 60 for oats. Rotation in crops being essential to keep the soil in proper condition, wheat, corn or hops may alternate advantageously with flax. The latter is the least exhaustive of any crop to the soil, as the straw returns more phosphates than wheat, oats or beans, and it makes the best fallow preparation for wheat. The flax crop is not liable to the dangers to which the wheat crop is subject, and it gives the quickest and surest returns; Dakota and other Western states have made surprising returns of this crop. Russia and Holland supply the best seed, which is procured from them by the other European flax-raising countries, and realizes an average of \$13.37 per acre for the seed. The average yield per acre of flax seed is 9¼ bushels at an average price of



\$1.44 per bushel. The increased cultivation of this product with a diminution of that of wheat, it is evident would enhance the price of the latter.

### THE CORN SUPPLY.

Relative to the prospective supply of corn, based on the comparative estimates of last year's crop and the reserves, the *N. Y. Produce Exchange Reporter* refers to its own estimates of the inferior crop of last year both in yield and quality at 1,225,000,000, against the Agricultural Bureau's December estimate of 1,600,000,000 bushels, claiming the former to be more correct. The Bureau's return of the crop of 1882 was 1,617,000,000 bushels, only 17,000,000 in excess of that of 1883. The prices of corn and hogs have ruled, this season, about the same as last, while fewer hogs have been raised, and very much fewer exported, as well as much less corn. The stocks of corn and provisions are much smaller than a year ago, all which indicates the correctness of the lower estimate. The new crop, which still requires from two to three months before reaching the markets, will find reserves still lower: but it promises well, and may, from its amount and quality, says the *Reporter*, even lower the present prices of corn and meat.

### THE GRAIN ELEVATOR QUESTION IN THE CANADIAN NORTH-WEST.

A question of importance to the Canadian Northwest is the proper handling of grain, more particularly of wheat, for market; that is to say, whether this grain shall be marketed in a proper manner, by means of receiving elevators at railway stations, which both clean and grade the wheat before running it into the cars; or shall it be loaded into the cars from flat warehouses which have no appliances for cleaning or grading? The farmers, worked upon by designing men, received the impression that the steam elevators which the Canada Pacific Company were anxious to encourage were in some way identified with "a grinding monopoly," and they refused to use them. Mr. Van Horne, in a letter to the Manitoba and Northwest Farmers' Union, points out one of the consequences of this disregard of true economical and business principles. He states that he recently saw at Port Arthur a quantity of Manitoba wheat which had been shipped through the flat warehouses, which was "very dirty, badly mixed and generally disgraceful," and he remarks that "two or three seasons' shipments of this kind will effectually ruin the reputation of Manitoba wheat, and enormously reduce its value in the Eastern markets. Much of this wheat could have been increased from ten to twenty per cent. in value by careful cleaning at a receiving elevator with proper facilities, and at a cost of not more than one fourth of a cent per bushel." As Mr. Van Horne has a large interest in the grain traffic of the Canadian Northwest; as his company is interested in the farmers of that country exporting their grain under the most favorable circumstances, and receiving for their crop the highest price; and as he has had a large experience in the handling of wheat, and in the grain traffic in the United States Northwest, his statements of facts and his advice should have weight with the Farmers' Union. Mr. Van Horne points out that the anticipated surplus wheat crop of the Canadian Northwest this year—say 6,000,000 bushels, to be increased in two years hence no doubt to 10,000,000 bushels—cannot be handled through flat warehouses. His company, therefore, will continue their efforts to secure two or three suitable elevators at every grain station on their line. For these efforts, which will be continued until crowned with success, the Northwest farmers will in the end be thankful. Manitoba wheat is an excellent grain. The hard Fife is generally sown, the best flour-producing grain of our day; and the problem of the hour is to place this wheat in the best possible condition in the Liverpool market, so that Manitoba wheat may retain its present pre-eminence, and always realize the top of the market. The measures which are being taken by the railway company are all intended and calculated to accomplish this end.

We understand that it is the company's policy to adopt the same system along their new line in Ontario. This will be a new departure in that province, and one which will, we doubt not, be regarded favorably by the Ontario wheat growers, who will scarcely allow themselves to be imposed upon by demagogues to the injury of their material interests. It is a far-sighted policy, both for Ontario

and Manitoba, and will ultimately tend to make the Canadian Pacific the most popular railway in Canada with the farmers.—*Canadian Paper.*

### THE BIFURCATED GRAIN SPOUT.

The past fifteen years have been very prolific in inventions designed to facilitate the rapid handling of grain. The elevator is simply an aggregation of these appliances, all of which play a more or less important role in achieving the grand result of that rapid and economical handling of our vast grain crops which is the admiration of the world. We give below an illustration of one of these devices, THE BIFURCATED GRAIN SPOUT, for trimming cars, which loads a car without shoveling.

Our illustration is sufficiently explanatory of the con-



THE BIFURCATED GRAIN SPOUT.

struction of this spout, without going into a detailed description; in fact, the simplicity of the spout is such that no such description is required. It is so constructed that it can be hinged to a wood spout, and is always ready to swing into a car; and, by removing the prop, the spout swings out of the car of its own accord, far enough to clear the car. The spout is manufactured out of No. 16 iron, and is lined throughout with No. 14 iron, great durability being thus secured. The linings are so constructed that they can be removed and new ones put in their places, thus making the spout as good as new.

This spout is used on a large number of the best equipped elevators in the country, including many of those at Chicago, St. Louis, Buffalo, Detroit, Toledo, Kansas City, Peoria, and other grain centers. It is said that with a fall of thirty feet 30,000 pounds of oats can be spouted into a car in five minutes' time; and this is said to be the only spout that will load both ends of a car at the same time, and which can be operated entirely from the outside of the car. The essential features of this spout are covered by letters patent. It is made by H. SANDMEYER & Co., 119 South Adams Street, Peoria, Ill., who also make a Flexible Grain Spout for trimming cars. Messrs. Sandmeyer & Co. will be glad to furnish any desired information respecting either of these convenient devices.

### STEAMER WHEAT.

The term "steamer wheat" is applied to such grain as shippers consider unsafe to send abroad by sail; it is in a damp condition, grading according to the degree. Louisville dealers have been advised that a sharp discrimination will be made this season against this class of wheat. This ordinarily has sold within from three to five cents of No. 2 red New York; but the advices are that it will be put at ten to twenty cents below, and some Baltimore firms will refuse it altogether. This should be a practical lesson to producers as to the choice of time for threshing, and lead them, as in Europe is required, to hold their grain in stock for a favorable season and conditions.

### AGRICULTURE IN EGYPT.

A resident of Indianapolis, Ind., traveling in Egypt, writes to the *Indiana Farmer* an interesting and instructive description of the agriculture of the delta below Cairo, from which point he writes. The Nile, the third great river of the world, rising in the mountains south of the equator, and running a distance of 3,200 miles, has triple divisions at this point, running for 1,000 miles through a rich alluvial valley, averaging eight miles in width. These divisions, still further divided by innumerable other small streams, spread out to a coast line of 200 miles, with sides of about 175 miles in length. Every inch of this exhaustless soil is cultivated. Half of the delta is devoted to cotton; one-half of the remainder to wheat, and the rest to corn, barley, oats, and vegetables. Although the methods of cultivation are the crudest, the cotton, says the writer, looks better than any he had seen in Alabama or Tennessee. The wheat, when harvested, will give a large amount for exportation. The agricultural implements have changed but little in 300 years. A piece of timber with a sharpened knob is the plow; two cows are yoked to it by means of a straight stick of timber, three inches in diameter, laid on their necks, and are hitched to one end of the plow, and with a man at the other they "tickle" the soil. The only instrument besides is a kind of cross between a mattock and an adze, with a very short handle, which the laborer uses stooping, as a hoe. The soil has to be irrigated, and the old-fashioned water wheels are still used that have been made familiar to everybody by travelers. A buffalo cow usually furnishes the power; the lower part of the wheel is under water, and earthen jugs form the buckets. The sweep is also used. These methods are venerable with 2,000 years of use. The grain is cut with a sickle, or rather hooked out by the roots, and the fields are thoroughly gleaned, hardly a kernel being lost. The threshing is done by cattle treading, and also by crushing with a sledge running on iron rollers, drawn by cows, and the grain is tossed up for winnowing. Fruit is abundant also, from dates, figs, etc., to apples and peaches. Camels and donkeys furnish the transportation facilities. Bullocks are only used for food, and the cows are worked. Sheep are raised considerably, and goats for milk, whose keep is very inexpensive. Some improvements are creeping in, but rich and poor alike oppose them. The writer saw one steam threshing machine between Cairo and Alexandria, where a grain drill had been used. Some one told him that he intended to send to the United States for a reaper. Several steam engines are in use for water-pumping, but the lack of fuel makes them expensive. There is no coal or wood there; and no fuel is needed for warmth, and but little for their pristine cooking; heaps of cow dung supply the place of our woodpiles. A few own their land, but the dense, poverty-stricken masses cultivate the land on shares.

### RAILROAD EARNINGS.

Railroad statistics show, as was expected on account of the general trade depression, a decline of earnings in the month of June as compared with those of the same period last year. The *Financial Chronicle* shows a decrease in these periods compared of \$811,681, or four per cent. More than half the roads show a decrease; but in most cases it is small, and no more than should have been reasonably expected as the effect of the May panic. It is generally believed now that the depression has reached its lowest stage, and that a new impetus will be given in the movement of the incoming crops. For the first half of this year, fifty-five railroads earned about \$110,610,000 against \$112,965,000 in the same period last year; a decrease of only about \$2,355,000, or a trifle over two per cent.

We were leaning on a desk in the grain corner, on 'Change, and an old broker observed: "Nobody can tell what the corn crop can do. I have seen fine crops harvested from short stalks. With everything favorable this may occur this season here in Ohio and other districts where the growth is backward." And as he passed along another old broker halted to observe: "Corn can't do much good this season, where the dry weather and other causes have put it so much backward. I've never seen a good crop of ears without a good growth of stalks, and the stalks will be short this season."—*Cincinnati Price Current.*



## Legal Notes.

### Seat in Board of Trade.

A seat in a Board of Trade is property which a court of equity will recognize, and it will compel its transfer by one who wrongfully holds the certificate thereof to its owner.—*Weaver vs. Fisher, Illinois Supreme Court.*

### Carrier's Lien.

The lien of a common carrier on goods transported depends on the contract with the owner. Ordinarily the law implies a lien, but when goods are sent not according to the contract with the owner, but by some other route, there is no lien for freight money.—*March vs. Union Pacific Railway Company, United States Circuit Court, District of Columbia.*

### Gambling Contract—"Options."

An action was brought to recover the difference in the price of corn between two dates. The transaction originally entered into was what is known as an option deal, but afterward the parties entered into a regular contract for the sale and delivery of the corn. Held, that both contracts related to the same transaction; and as the first was illegal, being a gambling contract, the second was also invalidated.—*Sturgis vs. Webster, Appellate Court, Illinois.*

### Broker.

G, a broker, deposited a margin with B, another broker, without demanding security therefor, but, according to the custom of the Board of Brokers, it was optional with G to do so. He acted in good faith, and when the deposit was made with B the latter was in full credit. Held, that there was no evidence of negligence, such as would make G responsible for a loss occurring through B's insolvency.—*Gheen, Morgan & Co. vs. Johnson, Supreme Court, Penn.*

### Insurable Interest.

As a rule the insured must have an insurable interest both at the inception of the contract and at the time of loss. But such interest exists whenever its destruction would involve pecuniary loss, either to himself or others for whom he acts. It is enough that he has the care or possession of the property, to authorize an insurance for the benefit of the owners, which they may ratify after the loss. The burden of showing a want of insurable interest is on the company.—*Sheppard vs. Peabody Ins. Co., Supreme Court of W. Virginia.*

### Warehouse Receipts.

When a warehouseman having in store a quantity of wheat deposited by several persons, for which, under a statute providing that receipts therefor shall be negotiable, and be evidence of the title to the wheat named therein, issues receipts to each depositor and fraudulently disposes of part of the wheat, the receipt holders must share in what remains according to an equitable accounting. No one of such receipt holders could recover by law the whole, nor could any number of such holders, less than the whole number, recover possession as against the remainder.—*Dows et al. vs. Erskine, U. S. Cir. Ct. for Minn. Circuit.*

### Option Contracts.

In May, 1879, defendants bought of plaintiff certain bacon deliverable at sellers' option during the next July. This contract was made subject to the rules of the Merchants' Exchange by which margins could be called for as the market price varied. If the margins were not at once put up the party entitled to demand the deposit might close the contract before July 31, and demand a settlement. On July 10 plaintiff failed in business, and sold the contract to Bartle & Cochran, who afterward tendered the bacon to defendants. The latter would not accept it. Held, that this contract was not assignable, and there could be no recovery upon it.—*Boykin vs. Campbell & Cartan, St. Louis Ct. of Appeals.*

### Sale—Fraud—Change of Possession.

The purchaser of goods could not pay for them, and he sold them to persons who employed him as a salesman. The vender attached the goods, claiming that the purchase and sale were fraudulent, and that the employment of the purchaser by his vendee was conclusive evidence of fraud as to the fraudulent sale by him. The trial court decided against the attachment, and the case—*Grady vs. Baker*—was carried to the Supreme Court of Dakota, where the judgment was affirmed. The Chief-Justice (Edgerton), in the opinion, said: "The

employment of the vender by the vendee after a sale may be proved as a fact tending to show that there has been no actual or continued change of possession; but when proved it does not become conclusive of the question, but only an element of proof to be weighed by the jury. After a sale of goods and chattels, and an actual change of possession, the employment of the vender by the vendee, in the capacity of a clerk or salesman, is not in itself conclusive evidence of fraud which admits of no explanation. After a sale of goods and chattels, and an actual and notorious change of possession, the employment of the vender by the vendee as a mere clerk or salesman is not a fraud which vitiates the sale, for the change of possession is not continued."

### Partnership and Exemption.

One partner, with the consent of the others, may claim a separate exemption out of partnership which has been seized on an execution against the firm. The consent of the partners that each should have and select an exemption out of the partnership property, after a levy thereon, amounts to a severance of the joint property, and the several right of each attaches to the portion by him selected. A demand by each partner for such an exemption will be deemed a consent that the others have, and select the same. In such case there is a sufficient demand if the partner informs the officer making the levy that he claims his exemption, and that the other partners do the same, and asks permission to make his selection.—*O'Gorman vs. Fink, Supreme Court of Wisconsin.*

### Contract by Letter.

A loan was tendered to A, which was to be accepted by letter. The letter was written in a reasonable time, but the trial court instructed the jury so that they found that there was not a sufficient acceptance. The case—*Ferrier vs. Stover*—was carried to the Supreme Court of Iowa, where the judgment was reversed. Judge Adams, in the opinion, said: "The rule now supported by the great preponderance of authority, and almost, if not quite, universally adhered to, is that when a proposal is accepted by letter the contract is deemed to become complete when the letter is mailed, provided the offer is standing and the acceptance is made within a reasonable time. The contract is deemed complete when the letter is mailed, because the mailing constitutes the overt act by which the acceptance is manifested."

### Acceptance of Contract by Letter.

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### Telegraph Company's Liability.

A telegraph company receiving compensation for transmitting messages is bound to exercise the utmost care in doing so, and will be responsible for any mistake arising from such care not being exercised. If, to insure accuracy in such transmission, repeating is necessary, the duty of doing so devolves upon the company. The company cannot limit its liability by any rule or regulation of its own. In this case the message was: "Cover two hundred September and one hundred October." These were shown to be ordinary terms used in the cotton trade, meaning that the person receiving the message should sell for the sender two hundred bales of cotton, deliverable in August, and one hundred deliverable in September, and the court decided that this was not such an obscure message as would limit the usual liability of the company.—*Western Union Telegraph Company vs. Blanchard, Supreme Court of Georgia.*

### Negotiable Instrument.

An action was brought upon a promissory note to which there was a seal opposite to the signature, but there was no reference to the seal in the note. The trial court admitted evidence which was not competent if the

note was commercial paper, and the plaintiff failed in his case. He carried it—*Brown vs. Jordhall*—to the Supreme Court of Minnesota, where the judgment was affirmed. The Chief-Justice (Gilfillan), in the opinion, said: "The appellant contends that merely placing upon an instrument a scroll or device, such as the statute allows as a substitute for a common law seal, without any recognition of it as a seal in the body of the instrument, does not make it a sealed instrument. Undoubtedly, where there is a scroll or device upon an instrument there must be something upon the instrument to show that the scroll or device was intended for and used as a seal. But it would be difficult to conceive how the maker of an instrument could better express that a device was intended for a seal more clearly than by the word 'Seal' placed within and made a part of it. The instrument in this case was an instrument under seal, and the defenses were properly set up."

### Partnership—Expenses and Interest.

In an accounting upon the dissolution of a partnership there was a dispute as to the authority to incur expenses and as to interest. Both parties appealed, and the Supreme Court of Michigan, in deciding the case—*Sweeney vs. Neeley*—through Judge Sherwood, said: "1. With or without the consent of one partner the other can expend any reasonable amount which he may deem proper in the legitimate prosecution of the copartnership business. 2. Unless it is agreed between partners before dissolution and final settlement, neither is chargeable with interest on money he owes to his partner or to the firm arising out of the business transactions of the concern. We do not mean to be understood to say that there may not be equities existing between partners and equitable circumstances existing between partners before final settlement which would raise an implied agreement to pay interest. 3. Interest can never be allowed upon an unsettled or an unliquidated account without an express agreement, or one clearly applied, and the case must be a strong one when it is between partners to warrant its allowance without an express agreement to that effect."

## THE PANAMA CANAL.

The most contradictory reports have been published from time to time relative to the progress of the work on the Panama Canal and its prospects, in general, however, unfavorable. M. DeLesseps, the great French engineer, has recently contradicted these rumors of failure and declares that the obstacles to be overcome have proven less than were expected, and he says: "The enterprise is making rapid progress, and the canal will be finished, at the latest, in 1888." *Per contra*, from a report made to the Secretary of the Navy by Lieut. R. M. G. Brown, U. S. N., who joined the Lackawanna at the Pacific Station, the following statement as to the condition of the work, written at Callao, on June 2, gives the results of his observations. The original estimated cost of the work was about \$120,000,000, of which one-half has been expended in addition to \$20,000,000 paid for the Panama Railway. The official reports state that five of the total seventy-five million cubic meters had been excavated by May 1, but the Lieutenant says that only four millions have been effectively excavated, and only about one-thirtieth of the necessary work is completed. Much of the machinery, etc., purchased, he says, at extravagant prices, has been found useless; some \$15,000,000 worth has been sunk in the soft marsh and entirely lost. An epidemic of yellow fever threatens the Isthmus, for which the hospital expenses alone will be over \$3,000,000, and the losses of life and labor are not easily estimated. The Chagres River, in the dry season only a sluggish stream, becomes an uncontrollable torrent in the wet period. In November, 1879, the railroad was covered with water eighteen feet for a distance of over thirty miles; another such a flood, says the report, would undo much of the work. Lieut. Brown doubts its success utterly under the present plans and management. The French government have too much elsewhere, as in China, etc., demanding their attention and funds to undertake it, and no other government will aid the present management. The writer thinks that the Nicaragua Canal is likely to be completed long before that of Panama.

Where machinery is used, the Drew Oil Cup will save 50 per cent. of oil. Write for circular. Borden, Sellick & Co., Chicago, Ill.



## Communicated.

### A LARGE CROP AND A GOOD BUSINESS.

*Editor American Elevator and Grain Trade:*—Find herewith renewal of subscription to the AMERICAN ELEVATOR AND GRAIN TRADE; cannot do without it. We have the largest crop we have ever had here in this section. Wheat is of very fine quality, and grades No. 2 winter in your market, straight out. Our farmers seem willing to take the present market price, which is 75 cents here. I am shipping from two to four cars daily. My elevator, built last year, is put to its full capacity now, and gives the best of satisfaction.

Yours truly, H. H. EMMINGA.  
Golden, Ill.

### HOW A VALUABLE PROPERTY WAS SAVED

*Editor American Elevator and Grain Trade:*—The flour mill of G. Y. Roots & Co., of this city, is entirely equipped with my sprinklers, and with other fire preventives of my manufacture. On June 26 one of the elevators clogged, the belt and pulley caused a friction, charring the woodwork. The heat generated opened one of the sprinklers, extinguishing the fire before it even had time to start, showing clearly the efficacy of my sprinklers, and preventing what would otherwise have resulted in a serious loss by fire.

Very truly yours, MARCUS RUTHENBURG.  
Cincinnati, Ohio.

### AN IMPORTANT BUSINESS CHANGE.

*Editor American Elevator and Grain Trade:*—Referring to the accompanying circular of the New York Iron Roofing and Paint Works, we wish to say, that having, through our extensive business in corrugated iron, much inquiry for roofing of flat sheets, and having for years known well of the roofing sold by the New York Iron Roofing and Paint Works, which we consider unequalled for effectiveness, as is stated fully in accompanying pamphlet, we have, at large cost, bought out that establishment. We only ask that we receive equal patronage to that of our predecessors, guaranteeing to maintain the hitherto high character of this roofing to the fullest extent. With this extension of our manufactures we are now undoubtedly the largest manufacturers of metallic roofing and siding in the United States, and having unequalled facilities we offer the most complete line of inducements to purchasers.

Respectfully yours,  
THE CINCINNATI CORRUGATING CO.  
Cincinnati, July 20, 1884.

[The circular referred to is as follows:]

To Whom it may Concern:

This is to certify that we have this day sold our entire interest, patents, franchises, machinery and good will in the iron roofing business to the Cincinnati Corrugating Co., and recommend all our patrons to extend the same courtesies and patronage to said company that have heretofore been so generously extended to us.

Respectfully yours,  
THE NEW YORK IRON ROOFING AND PAINT WORKS,  
Cincinnati, July 10, 1884. Chas. Stewart, Prop'r.

### THAT "CHANCE FOR INVENTORS."

*Editor American Elevator and Grain Trade:*—We notice in your issue of June 15 an article headed "A Chance for Inventors," and are somewhat surprised at the opinion expressed by the "Down Town Dealer in Grain," and think that the gentleman must have kept studiously away from the mills of this country, or confined his attention to a few of the more inconsequential or he would have found that the chance for inventors had been long since taken advantage of by the manufacturers of the Kurth Cockle Separator; and they have turned the chance to such a good account that the millers and elevator men throughout the country have found the Cockle Separator manufactured by them, the realization of what he terms the "Fantasy" of the millwright, viz.: A machine which discharges the cleaned, golden grain from a large spout, and a stream of black cockle and dirt from a smaller one.

That the obstacles, enumerated as being met with, in the use of the machines referred to, do exist we will not dispute; but they are entirely done away with in the Kurth Cockle Separator, as is attested by the highest testimonials and recommendations from the leading millers of both this and foreign countries.

We trust that the "Down-Town Grain Dealer" will

step into some well regulated mill and carefully watch the operation of some one of the 3,000 machines that we have in operation, and we think that he will then tell the New York *Sun* reporter that the chance for inventors in the line of cockle separators is not as extensive as he has hitherto considered it to be.

Very truly yours, JULIUS SCHLESINGER,  
Sec'y Cockle Separator Mfg. Co., Milwaukee, Wis.

### THE GIRARD POINT ELEVATOR.

Girard Point, which lies away to the left, at the junction of the Delaware and the Schuylkill, is a great grain depot, and has one of the largest elevators in the United States. It stands in the center of the wharf of the International Navigation Company, is one hundred and thirty feet high, two hundred feet deep, and one hundred feet wide, and contains twelve elevating machines, each of which we are told has a capacity of unloading into the hold of vessels four thousand five hundred bushels of grain an hour, a total of fifty-four thousand bushels an hour when they are all working, or a grand total of five hundred and forty thousand bushels in a day of ten hours' work. This wharf and elevator are connected with the southern extension of the Pennsylvania Railroad, and cars loaded out West, in Minnesota, Kansas, where you will, are run directly up to the vessels that are to receive the grain, of which as many as twelve ordinary vessels or four first-class steamships can be berthed at once. These figures affect us more powerfully, or ought to, than any figures of speech in which we might indulge.

### THE CARONDELET ELEVATOR.

The Carondelet elevator for grain, built at Carondelet, South St. Louis, for the Missouri Pacific Railroad Co., is located broadside to the river, at the intersection of the above road with the St. Louis, Iron Mountain and Southern, at a point sloping from a height of forty feet to a considerable distance into the river, and on hard lime-stone strata. The building was planned to have a length adequate to receiving five cars at one time, unloading, weighing and elevating each separately, and in the most expeditious manner. A barge was to be unloaded, in the minimum of time, alongside the building, and in such manner as to keep it trim, and thus avoid strain on the hull. The capacity to be 750,000 bushels of wheat.

The foundation is of solid masonry, reaching to the height of track, a varying distance of from twenty-eight to forty-three feet. The extreme variations of water are thirty feet. To endure this pressure, the external walls of the ends and river line are joined by cross connections, at eleven feet distance from center, to the inner parallel line, carrying the first inner line of vertical supports; these aggregate a base of seventeen feet of ample strength for all emergencies. The length of the shore side of building is 170 feet, and there are five elevator legs, at distances from centers of thirty-three feet. The buckets are larger than usual, and move at the maximum practical speed. The belts run through boots with adjustable bottoms, which are not liable to choke up.

The number and position of the shipping bins, and their elevating legs, correspond to the hatches of the standard barge, in order to effect uniform loading throughout at the same time. Thus no time is lost in spout shifting or grain distributing as formerly. This is the first house on the Mississippi that has employed this method.

There are eleven scales, each of 600 bushels capacity, all on one floor. The bin frames rest on wooden supports, consisting each of three posts, 12x12, and other posts, 8x12, the centers being spaced eleven and ten feet apart, except the division where the track extends, which is wider. The interior supports rest on circular iron columns placed on stone caps, leveled directly on the rock. The bodies of the bins are formed in *laminae* by two-inch, well seasoned pine timbers, and the bins are sixty-seven feet high, having graduated walls varying from ten to four inches in thickness.

The power used is a high-pressure, condensing, Corliss engine, and the boiler is set to burn slack. Friction pulleys transmit the power, driving the legs, power shovels, capstans, etc. The engine, boiler and office are in a one-story brick annex, above whose roof the brick smoke-stack rises 135 feet.

F. Wm. Raeder, architect and consulting engineer of St. Louis, furnished plans and constructed the building.

## Late Patents.

Issued July 15, 1884.

DRIVING BELT.—Robert Bibby Jones and James Hughes, Liverpool, County of Lancaster, England, assignors to Garnock, Bibby & Co., same place. (No model.) No. 302,204. Filed May 14, 1884. Patented in England January 4, 1884, No. 643.

MACHINE BELT HOLDER.—William R. Santley, Wellington, Ohio. (No model.) No. 302,037. Filed December 5, 1883.

GRAIN METER.—John W. Hill, Cincinnati, Ohio. (No model.) No. 302,136. Filed April 30, 1884.

GRIP PULLEY.—Oswald Jackson, Carrollton, Ill. (No model.) No. 301,997. Filed February 26, 1884.

METAL ROOFING.—John H. Dellman, Pine Bluff, Ark. (No model.) No. 302,113. Filed February 4, 1884.

Issued on July 22, 1884.

BALING PRESS.—Jacob Price, San Leandro, Cal (No model.) No. 302,355. Filed May 8, 1884.

CAR STARTER.—William E. Adams, Lynn, Mass., assignor to himself and William F. Hanson and Charles V. Winship, both of same place. (No model.) No. 302,224. Filed May 12, 1884.

MIXING MACHINE.—John McKeager and William Wells, Brooklyn, N. Y. (No model.) No. 302,420. Filed December 1, 1883.

PEA-SHELLING MACHINE.—Felice Molini, San Francisco, Cal. (No model.) No. 302,515. Filed April 12, 1884.

CORRUGATED IRON ROOFING.—L. Lewis Sagendorph, Cincinnati, Ohio, assignor to the New York Iron Roofing and Paint Company, same place. (No model.) No. 302,286. Filed February 23, 1883. Renewed June 7, 1884.

Issued on July 29, 1884.

AUTOMATIC REGISTER FOR GRAIN, SEED AND OTHER SUBSTANCES.—John Wherry, Jr., Putnam, Ill. (Model.) No. 302,697. Filed April 21, 1884.

DRIVE CHAIN.—Joseph J. Seldner, Baltimore, Md. (Model.) No. 302,785. Filed September 18, 1883.

DRIVE CHAIN.—Rodney F. Ludlow, Springfield, Ohio. (Model.) No. 302,574. Filed September 27, 1883.

GRAIN SEPARATOR.—John L. La Rose, Kansas City, Mo. (No model.) No. 302,570. Filed May 14, 1883.

GRINDING MILL.—John L. Clark and Byron Clark, Elgin, Ill. (No model.) No. 302,826. Filed May 2, 1884.

Issued on August 5, 1884.

METHOD OF AND MEANS FOR TREATING AIR FOR DRYING PURPOSES.—Ralph S. Jennings, Baltimore, Md. (No model.) No. 303,162. Filed June 23, 1882. Patented in England September 23, 1882. No. 4,546; in France September 26, 1882, No. 157,281; in Germany September 26, 1882, No. 23,666; in Belgium September 26, 1882, No. 52,120, and in Newfoundland February 6, 1883.

APPARATUS FOR TREATING AIR TO BE USED FOR DRYING PURPOSES.—Ralph S. Jennings, Baltimore, Md. (No model.) No. 303,163. Filed September 30, 1882.

APPARATUS FOR TREATING AIR TO BE USED IN DRYING.—Ralph S. Jennings, Boston, Mass. (No model.) No. 303,164. Filed March 8, 1883.

PROCESS OF AND APPARATUS FOR TREATING AIR.—Ralph S. Jennings, Boston, Mass. (No model.) No. 303,165. Filed June 8, 1883.

GRAIN SEPARATOR.—John B. Dishmaker, Carlton, Wis. (No model.) No. 303,217. Filed March 17, 1884.

The area in corn this year is about 70,000,000 acres. At the average yield per acre of the crops of the past five years this would give a production of 1,715,000,000 bushels; at the highest annual average yield within this period the production would be 2,037,000,000 bushels; at the lowest annual average yield the crop would be 1,302,000,000 bushels. Guessing at the result, at this period in the season, cannot be of much more value than guessing at next year's crop, but at date there is a good average promise, which may be somewhat improved or most seriously curtailed by events possible between now and the first of September.—*Cincinnati Price Current.*



## The Trade.

The Stilwell & Bierce Mfg. Co., of Dayton, O., report business excellent.

Edw. P. Allis & Co. write that they are as busy now as at this time last year, and do not anticipate any falling off of trade in the latter half of the year.

The contract for roofing the World's Industrial and Cotton Centennial Exposition Building at New Orleans has been awarded to the Cincinnati Roofing Co. The roof is to be covered with their patent inter-lock joint roofing. There is about 1,300,000 square feet, or in other words, 33 acres of surface. The firm is to be congratulated on receiving the contract.

Skinner & Wood, Erie, Pa., manufacturers of portable and stationary engines, report business has improved wonderfully in the past thirty days, and they have been obliged to run over-time to fill the orders which are entered on their books. They are preparing an outfit for Winnipeg, and another for Mexico. Between these extremes are some thirty-five others for intermediate states and territories.

Charles Kaestner & Co., of this city, are fitting up C. F. Schmidt's brewery at Indianapolis, Ind., with shafting, pulleys, hangers, mash-machine, malt-mill, etc., and are building an important nail-machine for barb-wire purposes, to go to Joliet, Ill. A large order for shafting is also in course of completion for the Homestake Mine, Dakota Ter. The works are running ten hours per day, and to their full capacity.

The Kerr-Murray Manufacturing Company, of Fort Wayne, Ind., is rebuilding the entire works of the Ypsilanti Gas-Light Company, Ypsilanti, Mich., including condensers, scrubbers, purifiers, holder, etc. The Kerr-Murray Company is also erecting a new 60' x 20' gas-holder for the Canton Gas-Light Company, of Canton, Ohio, and a 60' x 22½' holder for the Adrian Gas-Light Company, of Adrian, Mich. The company has a large amount of work under contract, and is running full in all departments.

The Simpson & Gault Mfg. Co., write the following to a contemporary, the *Age of Steel*: "Our business since Jan. 1 could not well be better, except during the time we were under water in February. We can always see from thirty to sixty days' work ahead of us in actual orders, and this was the case during the six months previous to Jan. 1. We cannot well extend our plant without moving, but since Jan. 1 have been obliged to add a number of new machines, which has enabled us to turn out a large amount of machinery. We anticipate a continuance of the present state of affairs, in our line of manufactures during the entire year."

### AMERICAN RAILROADS.

Poor's Manual for 1884 has just been issued, and presents the following facts relative to the railroads of the United States: The aggregate railway mileage at the close of the fiscal year 1883 was 120,552, with a total share capital of \$3,703,060,583; the funded debt was \$3,455,040,383; floating debt, \$332,370,345; total, \$7,495,471,311. There were constructed during the year 6,091 miles of new roads, at a cost, represented by stock and debt, of \$478,721,302. The gross earnings aggregate \$823,772,924, against \$770,209,399 for 1882. The current expenditures were \$525,406,359; net earnings from operation, \$298,366,359; from other sources, \$71,432,164; a total of \$369,798,523; out of which were paid \$173,130,064 in interest, and \$102,050,548 in dividends. There were transported on these roads during the year 400,455,439 tons of freight, which, valued at only \$25 per ton, exceeds \$10,000,000,000. The total length of track was 149,183 miles, of which 78,491 are laid with steel rails. The number of locomotive engines used was 23,823; of freight cars, 748,661; of passenger cars, 17,899; of baggage, mail and express cars, 5,948.

The United States consumes about 150,000,000 pounds of starch per annum, and exports a considerable quantity besides. Indiana produces about a third of all the corn starch made in this country.

The U. S. Government is using large numbers of the Howe Scales. Borden, Selleck & Co., Agents, Chicago, Ill.

### HOW THE CANTON ELEVATOR WAS BUILT.

The Canton elevator is owned by the Northern Central Railway, and is located at Canton, adjoining the City of Baltimore, Md. This line is leased by the Pennsylvania Railway Company. A pier 100 feet in width, extends 500 feet from low water line into the bay; upon the outer end of this is located the elevator building. Ample facilities for discharging ballast are being provided. The depth of water at low tide is not less than 26 feet, and the extreme variation between high and low water is 2 feet 6 inches. Almost directly across the bay, at Locust Point, are located the two elevators of the Baltimore & Ohio Railroad Company, and a short distance below this elevator are located the extensive coal-shipping piers of this Northern Central Railway Company. The construction of the foundation was begun in November of last year, the contract for superstructure and machinery was made in December, and the elevator was in full operation about the middle of September last. The foundation is of piling 60 feet long, spaced about 2 feet from center to center, and cut off 3 feet under extreme low water; around these piles were driven two rows of sheet piling and the whole space filled with oyster shells and small stones. Upon the tops of the piles was laid a platform 151 feet long and 85 feet wide, formed of two thicknesses of 12 inch by 12 inch Georgia pine. This was of sawed timber laid close and well secured by rag bolts and locust tree-nails. Under the elevating machines this platform was caulked with two threads of best oakum; it was built in place and secured to the piling after being well loaded with masonry. After the masonry was in place the pier was completed. It formed a very heavy fender 8 feet wide at each side and 15 feet at the end of elevator. Two large freight sheds are located upon it about 100 feet from the end of the elevator; upon the south side of pier, between elevator and one freight shed, is located the boiler house, the remaining space is occupied by tracks for grain cars.

The drilling yard is at the end of the pier upon the main land. Upon the foundation platform are laid the masonry wall and 56 piers for supporting the superstructure. The stonework is rock faced with cut beds and joints, all laid in cement. The four piers surrounding each of the eight elevating machines are connected by a masonry wall, and the inclosed spaces fitted with plate-iron tanks forming water-tight chambers; the depth of masonry is 11 feet 6 inches. A few inches below the top of masonry is the track floor, of heavy yellow pine, closely fitted, and under this are the track stringers and floor beams of wood, supported by heavy wrought-iron beams resting upon the masonry.

The dimensions of superstructure are as follows:

	Feet.	Inches.
Length from outside to outside of posts	142	11
Width from outside to outside of posts at base	81	0
Width from outside to outside of posts on weighing floor	40	8
Height from masonry to top of main rafters at center	139	6
Height from masonry to under side of grain bins in clear	19	5
Thence to top of grain bins	62	4
Thence to under side of next floor beam	25	0
Thence to top of wall plate	21	8
Thence to top of main rafter	11	1
Ventilating top upon main roof adds	6	0

There are 144 rectangular grain bins for storage of grain; one is used for piping and one for a hoisting pit, leaving 142 for use. One-half of the number measure 7 feet 4½ inches, by 7 feet 6 inches by 60 feet inside, and the remainder 7 feet 4½ inches by 11 feet 6 inches by 60 feet inside, excepting where each elevating tube passes through the bins, in which case a partition is cut out, making a bin 15 feet 3 inches by 7 feet 6 inches by 60 feet inside. The grain bins are supported by nine lines of oak posts, arranged as shown in the section on our two-page engraving. Each grain bin is fitted with inclined bottom, a valve for drawing the grain, and a ladder for access to or from it. Six sets of bins (four in each set) are fitted with extra bottoms and an iron shipping spout, so as to form shipping bins. Above the bins are laid gangways for convenience of attendants, beds for the shifting conveyors, and at the land end are located the engines for driving the works. The boilers are placed in an inclosure upon the pier, and about 60 feet from the elevator.

The weighing floor carries sixteen hoppers for weighing the grain, two cleaners, the shafting, rooms for the weigh master, oilers, etc. Within one year following completion the tops of bins will shrink and settle about 1 foot 8 inches. It is the custom to support the weigh-

ing floor and roof from the tops of bins. As that method gives much trouble, this roof and weighing floor is supported entirely from the foundation of building by posts, which are strapped, but not confined to the corners of the grain bins.

The posts are attached to the beams at bottom of the grain bins, and have cast iron caps, which act as bases for the posts that support the roof and weighing floor. As the bins settle, the straps slip down upon the posts without affecting the roof. All of the floors are well lighted and ventilated, and a ventilating top extends nearly the whole length of the building, and is fitted with adjustable windows.

The supporting posts under the grain bins and the center line under the weighing floor are of oak. The track stringers, beams under grain bins, and the flooring are of Georgia and the remainder are of Michigan white pine. The grain bins are of white pine 2 inches by 6 inches, excepting outside walls, which are of 2 inch by 8 inch. Every part of the wood in the whole building where exposed to view, and the bin materials, is planed all over. On the outside of the building, galvanized iron cornices are placed at the base of bins and at roof projections. The covering below the bases of bins is of corrugated iron; all of the remaining surface of building is covered with best quality of "peach bottom" slate.

Eight large freight doors are placed in the sides of the building at the track floor. In the lower story all doors and window shutters are of iron, and iron ventilating shutters are above the bins. Two sets of winding stairs of iron, inclosed in corrugated plates, give access from pier to top of bins, and two similar stairways connect the top of bins with weighing floor. A large fire pump connects with nozzles located on each floor, and fitted with all conveniences for extinguishing fire. Chemical fire-extinguishers, water tanks, buckets, and fire axes are also placed in racks especially provided and located at convenient points upon each floor. Every precaution for protection against fire is taken, and in handling the grain it in no case comes in contact with anything but iron. The leading dimensions are shown in the sections.

Upon the outside of the building at the water end are four shipping spouts; five upon each side which communicate directly or through conveyors with elevator in the building, and three shipping spouts from the shipping bin upon each side, making a total of twenty spouts to be used as may be found most convenient.

Under the grain bins in each of the side sections is fitted a bagging car so arranged as to make it possible to bag grain in wet weather. The bags being full, are discharged through the side freight doors upon covered skids on to the ship's deck. The car being on wheels it may be moved from bin to bin as required.

The engines are located above the grain bins at the land end of the building. They are horizontal, with two cylinders 16 inches in diameter and 24 inches stroke. The motion of line shafts is reversed by being made to go in opposite directions by wood and iron gearing, as shown on the drawing. The boiler-house, of iron and masonry, is principally under the pier, about 60 feet from elevator. The boilers are unusually heavy and are worked up to 100 pounds per square inch. The water for supplying the whole establishment is supplied by an artesian well 190 feet deep. The steam shovels are located about 12 feet above the track floor, but are not shown on the drawings. A piece of 4-inch gas pipe, supported by bearings, extends through the centers of all elevator tubes in each line, and receives from the main engines a horizontal movement of 12 feet and about 14 double strokes per minute. To this gas pipe, at each elevating tube, two large scoops or shovels are attached by ropes passing through leaders properly arranged. By means of these the cars are quickly unloaded. All of the elevating tubes in each line are connected with each other and the main galleys frame by two 8-inch deck beams heavily braced and stiffened by angle irons. These beams form seats for the journal box pedestals for shafting, and by securing all of the tubes together they are made independent with the shafting from the action of the building. All of the shafting is of the very best material and workmanship. It increases in diameter from the end elevator to the main driving pulley.

All journal boxes are of the adjustable ball and socket type, and the couplings of Cresson's patent. The center line of shafting passes through the center of elevating tubes, and at each tube it has a paper friction pulley, 1 foot 6 inches in diameter, built up of discs of best qual-



ity of "Manila" paper, under a pressure of 60 tons, and secured by heavy followers and bolts. Above each paper friction pulley is one of cast iron, double armed, very heavy, 3 feet 9 inches in diameter, and 22 inches face; it has adjusting machinery attached to its short shaft. In the boot at the base of the elevator is a drum pulley 2 feet 6 inches in diameter, 22 inches face, fitted with stretching gear for the belt, and worked from the track floor.

The grain belt is of rubber, 4-ply 20 inches wide, and connects these two last-mentioned pulleys, and is kept tight by the stretching gear just mentioned.

The grain buckets, of heavy tin, are spaced 12 inches from center to center, and secured to the belt by six bolts in each bucket. They measure 18 inches long, 5½ inches deep, 6½ inches wide. The shafting being in motion the upper belt pulley is lowered, and rests upon the paper friction pulley, thus causing the elevating belt to travel at about 450 feet per minute. In front of each elevator tube are placed two sets of Fairbanks' scales, each fitted with an iron tank, having cylindrical body, conical top and bottom, with capacity for 540 bushels of wheat, shoot spout and valve fitted to the bottom of weighing tank. Under each pair of tanks is a conical collecting hopper having a crane spout leading from it to the storage bins, shifting conveyor, or shipping spouts, as desired. The cleaning machinery is different from that shown upon the drawing, and will be explained presently. Two shifting conveyors are located, as shown in section, above the grain bins, and extend the whole length of the building. They consist of 4-ply rubber belts, 30 inches wide, supported by wooden rollers, spaced five feet apart under the loaded, and 10 feet apart under the unloaded belt. They are driven by bevel friction gear of paper, and are reversible. They move at a speed of 550 feet per minute, and are arranged to throw off the grain wherever desired. The belt is perfectly flat, has no raised edges, and does not spill any grain when working under a capacity of 9,000 bushels per hour. The arrangement of crane spouts is fully explained by the drawings.

The working of each line of elevators is as follows: Four cars of grain having been passed by the inspector are pushed in upon one track, until stopped by the bumper at the end, which will leave the doors nearly opposite the elevators. The car doors having been opened, two attendants enter each car with the wooden shovels (before mentioned in describing the steam shovels) with which they quickly discharge the grain into the receiving hopper. The ropes which work the scoops are attached so as to work alternately, thus causing a continuous flow of grain through the door of the car, so long as any remains or the gas-pipe plunger is kept in motion. At the beginning of this operation the grain valve in the boot should be opened, so as to allow the grain to flow from the receiving hopper into the ascending belt buckets (all of the machinery being in operation) just fast enough to fill them.

The grain is discharged from the head of the elevator into one of the weighing tanks where the whole car load is collected, weighed and distributed. While this operation is in progress four cars are pushed in on the other side of the same elevators, and discharged in the same manner, as soon as the valve at elevator head is shifted to the other weighing tank, which is done after all of the first lot is raised. The first line of empty cars is now drawn out and full ones take their places, and this operation is repeated as rapidly as circumstances will allow.

The weighing tank having been filled the grain is weighed and discharged through the valve into the collecting hopper and crane spout, to where it may be required. The crane spout is made of sufficient size to deliver the grain much faster than the elevator can lift, so that one weighing tank may always be ready to receive grain. The crane spout can deliver the grain into each of many storage bins, shipping bins, shipping spouts, or shifting conveyors as may be desired or found necessary. Should all the elevators be working one kind or lot of grain to be stored in one part of the house, the crane spouts which can reach those bins may be used, and the balance of the grain be discharged upon the shifting conveyors, and by them placed in the bins. Similar use is often made of shipping conveyors when working the whole house upon one vessel, or a single elevator upon a large vessel which cannot be moved, the elevator being a long distance from the spout leading to vessel.

Should a vessel be nearly ready for grain or be taking bagged grain, it is run into the shipping bins, and

from them drawn off as required. When the grain in the house or storage bins is to be shipped, spouts are attached to the bottom of bins, and the grain discharged into the receiving hopper in a continuous stream, elevated as before described, weighed at the top of the house, and discharged through crane and shipping spouts into the ship.

When grain is ordered for clean delivery it is elevated in the regular way, weighed and discharged into the foot of the cleaning elevator, by which it is lifted to the top of the house and delivered into a feeder.

From the feeder it flows on to a screen made of perforated Russia iron, measuring 8 feet wide by 12 feet long, and is set at an angle of 25 degrees from horizontal; it is driven at a speed of 1,100 vibrations per minute. As the grain falls upon it the cobs, sticks, straws, etc., are carried over the end; the grain passes through and down an inclined plane to a wind spout 8 feet by 1 foot, where it is met by a strong current of air. The unsound grain, dirt and chaff are carried off, and the cleaned grain falls into a chamber, and is carried where desired by an iron pipe. The unsound grain is deposited in the dirt room, and the chaff and light dirt thrown into the water.

The current of air is produced by a large exhaust fan. As only about 10 per cent. of the grain goes through the cleaner, it is claimed that this system of "cleaning" elevators for lifting the grain to be cleaned is a great improvement upon the custom of building the house high enough for the cleaner, and raising all of the grain to that height, whether it has to be cleaned or not. A saving of 10 per cent. in fuel is claimed by this arrangement.

Each of these machines will draw grain from four main elevators, and clean 8,000 bushels per hour.

Corn screens for the shipping spouts are to be fitted as the business requires.

	Bushels.
The total storage capacity of this building is.....	500,000
The total elevating capacity per hour is.....	32,000

The elevating capacity is kept much below these figures by the impossibility of handling cars fast enough. The size of the grain bins depends upon the nature of the business, location, rules of produce, exchanges, and systems of grading. Small ones in larger numbers are the most convenient, as many prefer their grain separate; with heating grain they save loss, and where there is no grading of grain they are necessary.

The elevating machines, eight in number, are placed in two lines of four in each. The distance of 31½ feet from center to center has been found the most convenient for the cars of the Pennsylvania Company. The distance between the center of the two lines of elevators is 32 feet, which gives room for two lines of rails between. In each of the eight iron tanks set in the masonry is laid a bed of hydraulic cement, upon which stands the cast-iron base or "boot" of the elevating leg, supporting a wrought-iron tube formed of plates, angle bars, and stay bolts. The elevating tube extends to the top of the building and is fitted with a movable hood and a discharge pipe and valve. At each floor the tubes are secured by wedges so as to remain vertical, but not so as to prevent the floor from settling. In the base or "boot" casting a feeding valve is fitted so as to be worked from the track floor. Surrounding and attached to the boot, at the upper part, is the receiving hopper with conical hopper bottom and rectangular top projecting 3 inches above the track floor. It is made of plate iron, stiffened by angle bars, supported by track floor and covered with wrought-iron grating, and holds about 450 bushels, or one car-load of grain. The length is such, that trains of four cars may very 10 feet in total length, and be worked without being uncoupled. Two lines of tracks are laid for each line of elevators, making room for sixteen cars.

Heavy oak bumpers are placed at the outer end of each line of tracks, for stopping cars in position when working the house. All of the improvements at Canton have been under the direct management of the officers of the Pennsylvania Railway in Philadelphia. The parties directly connected with the construction of this elevator were as follows: Mr. Frank Thompson, general manager of the Pennsylvania Railroad Company, and Mr. Wm. H. Brown, engineer maintenance of way, Pennsylvania Railroad Company, had general management of the whole work. The building was designed and working drawings furnished by Mr. W. B. Reaney, engineer and naval architect of Philadelphia, while the work was carried out under the immediate inspection of

Mr. O. E. McClellan, assistant engineer to the Northern Central Railway.

The contractors were as follows: Foundation and pier—Ross & Sandford, of Jersey City, N. J. The masonry contractor was too slow, and the work was finished by the railway company. For the superstructure and machinery, Messrs. J. T. Moulton & Son, builders and millwrights, of Chicago, Ill., were the contractors, but parts of the work were sub let as follows: Engines, boilers and fire apparatus to Messrs. Pusey, Jones & Co., of Wilmington, Del.; machinery and ironwork to Union Foundry Co., of Chicago, Ill.; timber and lumber to Messrs. Sondes & Adams, of Philadelphia; rubber belting to New York Belting and Packing Co., D. P. Dietrich, agent, of Philadelphia. The arrangement of the boilers is shown by the views we give this week on page 539.

Materials—In the foundations and pier there were used about 5,000 piles, 800,000 feet B. M. of timber, and 1,500 feet of masonry. In the superstructure there were used about 2,100,000 feet B. M. of timber, 550 tons of iron, 3,406 feet of belting, weighing 11,400 pounds.

### CROP-RAISING IN MINNESOTA.

The statement of the Commissioner of Statistics of Minnesota, in regard to the agricultural changes there in the past few years from producing wheat alone to diversified crops, has been already noticed in our columns, but is worthy of special attention and study as to its instructive teachings. The total wheat area of the state in 1881 was about 2,890,000 acres, which had decreased in 1882 to some 2,330,000, while the area under cultivation had been increased by more than 436,000 acres. In 1878 the wheat acreage was 68.98 per cent. of the total, which has since gradually decreased until in 1882 it was 53.35, or a little over half of the entire area cultivated. The acreage in the other cereals has had a corresponding increase, while the agricultural prosperity of the state, especially of the southern section, has proven the wisdom of this course.

### THE MINNEAPOLIS GRAIN ELEVATORS.

Trouble has arisen between the elevator companies of Minneapolis, Minn., and the Chamber of Commerce of that city, the former having failed to comply with the requirements of the latter in making receipts "regular" for delivery on sales between members. The rules require that to make its receipts "regular" reports shall be made weekly to the Chamber of Commerce of the amount of grain in store, and the grades. This requirement was complied with by all of the public elevators until Monday, 14th inst., when a report from elevator A comprised the grain that had been taken in by commission men only, the elevator company refusing to report the balance. A week previous the report of the house was 485,000 bushels in store, and on the day mentioned 90,000 bushels, showing a decrease of near 400,000 bushels for the week. It will be known that the reduction did not reach that amount, but just what it did amount to no one lacking the figures the A elevator company refuses to give, could tell.

Since the elevator companies began to comply with the rules of the Chamber, to report stocks in store, arrangements have been made to include Minneapolis stocks in the visible supply statements of the country, but the policy now marked out by that company makes these reports fictitious and wholly unreliable. At Monday's session of the Chamber of Commerce a committee was appointed by the directors to confer with the elevator company with respect to the matter, and to report to an adjourned meeting of the Board of Directors. A good many theories were started as to the reasons of the refusal, one being that certain parties did not want reports of the stocks in the city to go out; another that the Manitoba Road and the elevator company have some collusion in regard to the matter; but just why the refusal was made no one seemed to know. Mr. Fletcher, president of the company named, said he had heard nothing of it, but if any parties had grain in the house that they do not want reported to the public, they have the right to withhold the report of it; that the public had no right to inquire into private affairs of that kind. "If a man has wheat in an elevator," he said, "the public or newspapers have no more right to information concerning it than they have to know just how much money a man has in a bank, or to demand to know any other



private affairs of individuals." He said the elevator company had no other interest or intention in the affair than to accommodate and satisfy its customers. The Manitoba Road, he stated, had nothing whatever to do with the refusal.—*Millers' Journal*.

### BARLEY IN THE NORTHWEST.

Messrs. M. H. Pettit & Co., malsters at Kenosha, Wis., have just published their annual estimate of the present barley crop, made from replies to inquiries sent to representative localities of different states. There is by thirty Wisconsin localities returned an increased acreage in eighteen, about the same in eleven, and 10 per cent. less in one. In twenty, the stand on the ground is reported good; in five fair, and in five lighter than last year. The crop has been harvested in sixteen localities in good condition; in eight the crop is badly discolored; in three it is reported as damaged very much; and in three as not yet all harvested. The recent storms inflicted no damage in ten localities; in fourteen the crop is more or less discolored; and in five there are fears of its sprouting. In eight localities the color is reported bright; in nineteen somewhat discolored, and in three badly discolored. The weight is generally above the average.

Reports from twenty localities in Minnesota show an increased acreage in eight; the same in seven; a decrease in four, and none to speak of in one. The stand is returned as good in fifteen; in several extra good; in two only fair; one light, and one has no report. The crop is not all harvested but in general, where it is, the condition is good. In three localities it has been damaged by recent rains, and in six it is more or less discolored. The weight is in general above average and in some localities is very heavy.

The thirty-one points of returns from Iowa report an increased acreage in four; about the same in eleven; and none sown in eleven. The stand is good in three; fair in two, and light in four localities. The crop is more or less damaged and discolored at six points, and in good condition at three. The weight is returned as generally good.

Returns from Nebraska show an increased acreage in four; none in one. The stand is good in three, fair in two and light in four. The crop is in good condition in three localities; in six it is more or less damaged and discolored. The weight is reported good. Reports from Eastern States are of an average crop in fair condition.

During ten calendar years ending with 1883, the lowest price of wheat in the Chicago market occurred in August but once; in September once; in October twice; in December twice; in January twice; in February once; in July once.

A protective tariff is not necessary to the growing and export of grain, cattle, hogs, etc., but 80 per cent of the increase of exports during the past twenty years has been in the lines of breadstuffs, provisions, tallow and live animals. The chief of the bureau of statistics says this increase is due to the extension of railroads. But, again, the tariff makes railroad iron dearer, not cheaper. Still further, it is clear that if the tariff draws people into manufactures it draws them from other pursuits, including agriculture; but at the given rate of increase of exports it is not seriously contributing to give a home instead of a foreign market, or to send abroad manufactures instead of agricultural products.—*Galveston News*.

The Kansas State Board of Agriculture, in its July report, gives the following statistics of the winter wheat crop of that state for the past seven years:

Year.	Acres.	Bushels.	Average yield.
1878.....	1,297,555	26,518,955	20.43
1879.....	1,530,639	17,560,259	11.54
1880.....	2,215,937	23,507,223	10.61
1881.....	1,974,693	19,164,896	9.71
1882.....	1,465,475	33,943,393	23.16
1883.....	1,480,204	28,958,884	19.56
1884.....	2,147,583	47,858,000	22.28

The spring wheat area, which is confined almost altogether to the northern tier of counties, amounts in the aggregate to 85,000 acres, with estimated yield of 14.77 bushels per acre, making a total product of 1,255,000 bushels. This, combined with the winter wheat, gives an estimated wheat product for that state this year of 49,113,000 bushels. The quality of the wheat from all sections is reported superior to that of the previous year and fully as good as the crop of 1882. The report says: "If the final figures corroborate this estimate, there is little doubt but that Kansas will be the leading wheat state of the Union this year."—*Exchange*.

## General Items.

The yield of wheat in Tennessee is estimated at 10,000,000 bushels.

Ann Arbor, Mich., is to have a "bucket shop," to be run by Detroit parties.

The Twelfth International Grain and Seed Market will be held at Vienna on Aug. 25 and 26.

The *Chronicle's* fire report shows only three grain warehouses burned during the month of March.

Kansas produced nearly 200,000,000 bushels of corn last year and nearly 30,000,000 bushels of wheat.

In 1861 it cost 69 cents to carry a bushel of wheat from Chicago to Liverpool. Now it only costs 15 cents.

The estimated corn crop of Nebraska this year is 120,000,000 bushels—nearly 19,000,000 bushels greater than last year.

Correspondents of E. P. Bacon & Co., of Milwaukee, report heavy losses in the barley crop, by hail and rain-storms, in Wisconsin, Minnesota, Dakota, Iowa and Nebraska.

The *New York Produce Exchange Reporter* says the idea is fallacious that more wheat is consumed in winter than in summer. It is inclined to think that the reverse is true in this country and France.

Orrin A. Carpenter, the elevator owner, of Lincoln, Ill., who was acquitted of the charge of murdering Zora Burns, proposes to sue the Citizens' Committee, of that place, for their threats against him.

"The receipts of wheat in this market," says a Richmond, Va., paper, "have been liberal so far, but ten or fifteen days later than usual. It has come in from all sections of the state, and the market has ruled firm and active during the month just closed. Prices have been better than in any Eastern city. The bulk of the wheat received has been in good condition and of superior quality."

The corn-fields of Mills county, Iowa, have attained a somewhat notable reputation. It is said that about one-half of the cultivated soil there this year is devoted to corn, amounting to 138,540 acres. The estimated average yield, which is low, of thirty-five bushels per acre, gives a crop of 4,833,400 bushels, which, at 30 cents, is worth \$1,451,520. The *Malvern Leader* carries the calculation on to the value of this grain in cattle and hogs. Dividing this crop equally, allowing 100 bushels to a steer, the value of those using this grain, at an average of \$75 per head of cattle, would be \$1,814,400. The other half fed to hogs at the rate of fifteen bushels each, valued at \$10 apiece, would amount to \$1,607,940, or an aggregate in both of \$3,422,340, being a gain of about \$2,000,000 over the sale of the raw product. The writer estimates that dividing the corn acreage so as to give 80 acres of corn to each farm would give each an income of nearly \$2,000. The expenses that are not estimated above, the writer says would be amply covered by the other crops.

A citizen of Chicago has been observing the methods of treatment that some eminent jail-birds obtain here, who are none the less infamous because commanding influence and money. The special subjects were the two managers of the noted swindle called "Fund W," that brought heavy losses and ruin to thousands of poor laborers and families throughout the country, namely Flemming and Loring. The facts, given to a *Tribune* reporter, were that these men are provided with everything they want in the way of comforts and luxuries, and are visited at will by their associates and amused with games of poker, etc. They live on the fat of the land, paying \$35 per week to a hotel for their meals which are sent to them three times a day. Quite recently they were treated to an airing in Lincoln Park dressed, as was also the sheriff, in their best clothes, and apparently in full feather among the ladies, gentlemen and children who frequent these beautiful grounds. Rumor said that a fishing excursion to Calumet Lake was being planned. This makes judicial punishment simply a farce. The gentleman told the reporter that these rascals had secured \$3,000,000 in their operation as he had good reason to believe. Loring kept the money and had a strong box in a deposit vault here. A gentleman informed him that Loring, as he himself saw, had in his valise in Canada before being arrested six \$100,000-packages. The reports, says this gentleman, that the victims were pursuing him in Canada were false; what was done was stirred up by the other members of this

swindling syndicate. This rascal who did not have even the reputed "honor among thieves," it seems intended to swindle his comrades also; and they getting wind of it started this pursuit through some of the Canadian victims, and they kept pushing in charges one after another until Loring found that he would be kept in jail a good part of his lifetime if he did not disgorge, and he finally succumbed, leaving for himself, as was said, only about \$30,000, though this gentleman thought this was too low an estimate. These parties, as is well known, have the right to buy their own food, and they thus save the state this cost, but as the *Tribune* says, if the other privileges are permitted, as is stated above, the practice has no justification whatever.

## Items from Abroad.

A large grain elevator is shortly to be built at Bregenz. The elevators of Budapest, Austro Hungary, are to be lighted with electricity.

It is reported that the Sultan of Morocco intends to export wheat and barley to Europe.

The amount of tariff collected in Germany on foreign grain, last year, amounted to \$4,500,000.

Correspondence from London, Eng., says that all crops but wheat will be below the average.

The floating elevator which has been on trial at Bordeaux, France, is about to be sent to Rouen, France.

The city council of Feldkirch, Germany, have decided to build a large elevator at that place, the town to bear the expense.

English railways, it seems, discriminate in the carrying of grain, making special rates at points "where it is necessary to meet competition."

The agricultural statistics for Victoria for the year ending March, 1884, give the wheat yield at 15,499, 143 bushels for the year then ending, as against 8,751,454 for the corresponding period 1882-83.

According to the *Bristol Times* the first cargo of Persian wheat to arrive in Bristol was shipped in a large steamer named the Panama, and was received by Messrs. Roberts and Henry Adams of that city on Wednesday, June 2. The cargo, which was loaded at Bussorah in the Persian Gulf, consisted of 10,000 quarters of barley in bulk, and 2,000 quarters of wheat in bags.

A new drying apparatus for damp grain has recently come into use in Germany. It consists of a long iron cylinder, inside of which are small shovels standing upright and bent slightly downward. The upper end of the cylinder is heated, it is set in motion, and the grain dropped into it. The heated walls of the cylinder dry the grain quickly, and it is secured from overheating by the rapid revolution and forcing out of the grain by the shovels.

According to recent advices from London, neither India nor Russia are shipping wheat on a large scale, and the export movement in Australia seems expended. Chilian and New Zealand shippers hold their wheat above the views of buyers. English home supply is below the average. Uneasiness exists in France by reason of heavy rains and cold winds. In Roumania cereals are suffering from drouth. In Denmark all the crops are looking well. Excepting rye, the German crops promise well. Severe drouths and the reappearance of locusts in Southern Russia create grave apprehension concerning the grain crops. Throughout the United States the crop prospects for grain are favorable, and it is to be hoped that bountiful harvests will bring proper reward for the toil of the husbandman.

### A TORONTO ELEVATOR.

Since the fire in their elevator last winter Messrs. Chapman & Sons have erected without doubt the most convenient grain elevator in the Dominion of Canada. The new elevator, which was designed by Mr. S. P. Irwin, of this city, is now in running order, and gives the greatest satisfaction, not only to the owners but to people interested in the business who have made an inspection of the machinery for their own benefit. There are a number of good features about this elevator which are worthy of mention. In the first place, the hoisting buckets have been so arranged that the delivering capacity is 3,500 bushels per hour without straining the machinery. A small chain gear belt is used to convey the power from one shaft to another. In connection with the working of this elevator, a grain cleaner has been so connected that every bushel of grain is thoroughly blown before being loaded on board a vessel or run into a bin. This is the only elevator with a cleaner in Toronto. Heretofore grain dealers have lost money owing to the cleaning of grain at Oswego and other American ports. The elevator is most conveniently arranged. Grain, after being elevated and cleaned, can be run into any bin in the storehouse. A few days ago the engineer of the Ontario & Quebec division of the Canadian Pacific Railway inspected this modern elevator, and he was so greatly pleased with its conveniences and advantages that he said he would recommend that elevators constructed for that railway should be built on this plan.—*Toronto Globe*.



# Elevator and Grain News.

The elevator at Angus, Minn., is completed. An elevator is contemplated at Edmond, Kan. A large elevator is being built at Milnor, Dak. Hagemeyer & Co., Butler, Ky., are building a granary. R. H. Dodd is building an elevator at Wood River, Neb. C. T. Morian, grain dealer at Richland, Neb., has sold out.

A large grain elevator is about to be built at Bull City, Kan.

A 55,000-bushel elevator is being built at Memphis, Tenn.

J. G. Schaup & Son are building an elevator at Grand Island, Neb.

Farmers' elevators at Stephens and Argyle, Minn., are under construction.

Messrs. Meis & Drilling are building a new elevator at Templeton, Iowa.

A 50,000-bushel elevator on the Chase plan is building at Clay Center, Kan.

E. Clark, of Arapahoe, Neb., intends to build an elevator adjoining his mill.

McKenny & Bryant, grain dealers at Cedar Hill, Tex., have dissolved partnership.

J. A. Meadows, New Berne, N. C., is building a large grain warehouse and elevator.

W. W. Bryan & Co., Centerville, Md., are erecting a grain warehouse and elevator.

L. W. McGlaughlin succeeds E. F. Bent & Co., grain dealers, of San Francisco, Cal.

Stephens & Davison succeed J. H. Hemphill & Co. grain dealers at Seymour, Ind.

Clifton and Vining are claimed to be the best corn and hog markets in Northern Kansas.

The Franklin Warehouse & Elevator Co. are building a large elevator at Franklin, Tenn.

E. P. Marsh succeeds E. P. Marsh & Co., grain and commission merchants, of this city.

J. R. Kram, grain and lumber dealer, of Bloomington, Ill., has sold out to Cone, Brown & Co.

S. H. Edwards has sold his elevator at Georgesville, Ohio, to David Peters, of Galloway, Ohio.

E. Blair, of Washington, Iowa, has just put in a Harrison Conveyor for handling all kinds of grain.

The Denton Mill and Elevator Co., Denton, Tex., has been chartered with a capital stock of \$25,000.

Buell & Reed, of Rushville, Ind., have just ordered 75 feet of Harrison Conveyor for handling grain.

It is estimated that fifteen per cent. of the grain about Fergus Falls, Minn., has been destroyed by hail.

W. H. Negley, of Walnut, Ia., has just put in a Harrison Conveyor for handling ear corn and other grain.

Johnson & Son, grain dealers at Napanee, Ill., and also at New Paris, Ill., have gone out of the business.

Work is progressing on the new 800,000-bushel elevator "E" at Duluth, Minn., the foundation being completed.

Messrs. Frick & Co., of Atlanta, Ga., have just bought additional Harrison Conveyors for handling cotton seed.

A. T. Frank, Bellewood, Neb., has received a complete outfit from the Frost Manufacturing Co., of Galesburg, Ill.

C. T. Haskins & Co., grain dealers, of Osceola, Ind., have dissolved, and are succeeded by John W. Kelly & Son.

Messrs. Craig & Dunkersly, of Ennis, Tex., are putting in two Harrison Conveyors for handling cotton seed.

Baker, Potter & Co. are building a 600,000-bushel elevator at Minneapolis, Minn. The building is to be 60x200 feet.

Crawford & Taylor, stock and grain dealers, of Norfolk, Va., have dissolved. W. M. Crawford continues the business.

Chase Elevator Co., of this city, are building a 25,000-bushel elevator at Sanborn, Dak., a point on the Northern Pacific R. R.

Potter & Barker, of La Fox, Ill., have just bought a Harrison Conveyor for handling grain of all kinds, and also feed, etc.

Seaton & Cabeen, Seaton, Ill., have received a complete outfit for their house from the Frost Manufacturing Co., of Galesburg, Ill.

There remained on July 31 about 640,000 bushels of wheat in the elevators at Duluth, Minn., to move before the new crop arrived.

The Harrison Conveyor Co. have an additional order from the Southern Ohio Brick and Tile Co., of Cincinnati, for handling clay.

Barnett & Burdett, of Minneapolis, Minn., have just completed a 12,000-bushel elevator for W. F. Meader & Co., of Waconia, Minn.

Granger & Cox, of Hawarden, Iowa, have just placed in position 50 feet of Harrison Conveyor for handling ear corn and other grain.

Seeley, Son & Co., Fremont, Neb., are at work upon a 10,000 bushel Seeley Elevator at Herman, Neb., for C. C. Crowell & Co. Dickey & Pease furnish the fanning

mill; Fremont Foundry and Machine Works the shafting, pulleys, etc., and Webster & Comstock the belting and buckets.

The Frost Manufacturing Co., of Galesburg, Ill., have sold a 20 horse power boiler and engine to the Carson Land Co., of Auburn, Neb.

The Frost Manufacturing Co., of Galesburg, Ill., have furnished the outfits for the houses of T. J. Harvey, at Seaton and Little York, Ill.

G. A. Snook has retired from the firm of A. Snyder & Co., grain dealers, etc., at Radford, Ill. Albert Snyder continues the business alone.

The Frost Manufacturing Co., of Galesburg, Ill., are supplying outfits for the houses of J. H. Doll & Co., at St. Augustine and Oneida, Ill.

Bard Bros., proprietors of a mill and elevator at Milford, Kan., have dissolved partnership, and are succeeded by Pierce, Bard & Fox.

J. W. Perry has sold his elevator at Palmyra, Neb., and has gone to Ord, Valley Co., same state. Colton, Duff & Co. were the purchasers.

W. M. Vastine has nearly completed a new elevator at Hastings, Neb. His order for the full outfit was placed with W. G. Adams, Sandwich, Ill.

The Reno County Farmers' Co-operative Association at Hutchinson, Kan., have just bought fifty feet of Harrison Conveyor for handling grain.

Barnett & Burdett, Minneapolis, Minn., have the contract for building a 15,000-bushel elevator at Millette, Dak., for the Farmer's Elevator Co.

G. M. Thompson, grain commission merchant, Los Angeles, Cal., has admitted John S. Carr to partnership. The firm name is Carr & Thompson.

The Harrison Conveyor Co., of Chicago, have just shipped 100 feet of their conveyor to G. R. Gale, of Cleveland, Ohio, for handling grain.

The Harrison Conveyor Co., of Chicago, have just completed the third elevator for W. E. Johnson, of this city, for elevating and screening coal.

The houses of White & Leacock, at Morris and De Witt, Neb., have received complete outfits from the Frost Manufacturing Co., of Galesburg, Ill.

There are about 200,000 bushels of wheat still in store at Prince Albert, on account of there being no mill in the place to manufacture the grain into flour.

Harrison Conveyor Co. have just filled orders from the Bownsbury Brick and Tile Co. at Bowen, Ill., for conveyors for handling clay from banks to presses.

N. H. Warren & Co., of Aurora, Neb., have purchased of the Frost Manufacturing Co., of Galesburg, Ill., a 15 horse power engine and a 20 horse power boiler.

Glenville, Neb., is to have a new elevator, H. M. Oliver having placed his order with W. G. Adams, Sandwich, Ill., for an outfit of machinery for the same.

Messrs. Cheesman & Driesback are building a 30,000-bushel elevator at Tonganoxie, Kan. Chase Elevator Co. are the architects supplying plans and all machinery.

Ream & Welch, Conway, Kan., have recently built an elevator at that point, purchasing their outfit of machinery and supplies of W. G. Adams, Sandwich, Ill.

The new 25,000-bushel elevator at Mooretown, Dak., owned by Hugh Moore, is about ready to receive grain. It was built by Barnett & Burdett, of Minneapolis, Minn.

The Harrison Conveyor Co., of this city, have sold to Palmer, Trowbridge & Co., of this city, conveyors for elevating and screening coal from their yard to cars and bins.

The Delaware & Hudson Canal Co., of this city, have recently put onto their coal docks in this city two Harrison Conveyors for elevating and screening coal into bins or cars.

The Harrison Conveyor Co., Chicago, have recently placed in position three elevators and conveyors for H. M. Benjamin, of Milwaukee, for handling and screening coal.

The Harrison Conveyor Co., of this city, have just shipped an additional order for conveyors to the New Haven Lumber Co. at Des Moines, Iowa, for their new elevator.

The Harrison Conveyor Co., Chicago, have just sold to R. P. Elmore & Co., coal dealers of Milwaukee, conveyors for elevating and screening coal from yard to cars and bins.

The Harrison Conveyor Co., Chicago, have recently sold to the Northwestern Fuel Co., of Milwaukee, for elevating and screening hard coal, two conveyors 120 feet long.

Meeker, Hedstrom & Co., of this city, are just completing two Harrison Conveyors at two of their coal docks in this city for elevating, conveying and screening hard coal.

J. W. McMillan & Son, of Jamestown, Ohio, have just put into their elevator and mill 350 feet of Harrison Conveyor for conveying grain from elevator to mill, and vice versa.

The Kansas City White Lead and Linseed Oil Co. have just bought 360 feet of Harrison Conveyor for handling flaxseed and other grain in their new elevator at Kansas City.

Aug. Grosshaus, of Sutton, Neb., has contracted with Seeley, Son & Co., of Fremont, Neb., to rebuild his old elevator, making a 15,000 bushel Seeley Elevator of it. The shafting, pulleys, etc., are furnished by the Fremont Foundry and Machine Works; the belting and

buckets by the Webster & Comstock Mfg. Co., of this city; the engine by A. L. Strang, and the sheller, cleaner, separator and scourer by the Barnard & Leas Mfg. Co., Moline, Ill.

The Harrison Conveyor Co., Chicago, have additional orders from the superintendent of elevators of the Chicago, Milwaukee & St. Paul R. R. for the elevator at Wabasha, Minn.

Swaine Bros. & Syp, of Fingley, Iowa, have placed their order with W. G. Adams, Sandwich, Ill., for a new elevator to handle oats at that point, putting in one of his D. A. Wells Fanning Mills.

One dealer in Vining, Kan., has shipped the past year nearly 100 cars of hogs, 50 of cattle, 50,000 bushels of wheat, with a daily clearance of from 6,000 to 12,000 bushels of corn, for about ten months.

Seeley, Son & Co., Fremont, Neb., are building a 10,000 bushel addition to the elevator of Lew Robertson, Exeter, Neb., using a Barnard & Leas Separator made by the Barnard & Leas Mfg. Co., of Moline, Ill.

A. G. Scott & Son, of Kearney, Neb., have received their outfit of machinery and supplies, including a D. A. Wells Fanning Mill, from W. G. Adams, Sandwich, Ill., for their new elevator at Holdrege, Neb.

S. Sheppard, a grain dealer at Port Stanley, Ontario, Canada, for many years, has become involved through speculations and is said to have left for the United States. His affairs are reported in a very mixed shape.

A. G. Scott & Son, Kearney, Neb., have recently placed their fourth large order of this season with W. G. Adams, of Sandwich, Ill., for grain, elevator and warehouse machinery, besides numerous smaller orders.

Grain shipments to foreign ports for the month of July from New Orleans consisted of 304,928 bushels corn and 81,601 bushels rye. The same month 1883 the shipments were 614,925 bushels corn, and 8,000 bushels wheat.

The Harrison Conveyor Co., of this city, have in the last month placed in position for Pratt, Parker & Co., of Chicago, three conveyors for conveying, elevating and screening coal, handling it at the rate of three tons per minute.

Brown, Kanavel & Waugh, of Sedgwick, Kan., have been making extensive repairs in their elevator at that place, putting in new stands of elevators, conveyors, etc., purchasing their fittings of W. G. Adams, of Sandwich, Ill.

A Des Moines *Leader* reporter is informed that the production of the big distillery in that city does not equal the demand. For the next six weeks it is proposed to increase the daily consumption of corn to 3,600 bushels.

John G. Schaupp & Son, proprietors of "The Planet Roller Mills," at Grand Island, Neb., have just completed a 50,000-bushel elevator on the Chase plan. It is built to store for mill use, and has all the improvements found in the modern mill elevator.

Barnett & Burdett, elevator builders, of Minneapolis, Minn., have the contract to build a 60,000-bushel elevator at Fairview, Dak. J. Q. Adams, of this city, is interested in this enterprise. The elevator will be ready for handling grain by Sept. 10.

Barnett & Burdett, Minneapolis, Minn., are building a 40,000-bushel elevator for Cooper Bros., at Cooperstown, Dak. This will make the second elevator on the circular plan built at Cooperstown within a year, the Lenham Elevator and Lumber Co. having built one last year.

Seeley, Son & Co., of Fremont, Neb., are building a 15,000 bushel addition to Dern & Morehouse's elevator at Hooper, Neb. They use the Webster & Comstock Co.'s belting and buckets, the Fremont Foundry and Machine Co.'s shafting, pulleys, etc., and the Barnard & Leas Mfg. Co.'s cleaning machinery.

Wm. Baker & Sons, Bristol, Eng., are building a half-million-bushel elevator for storing bulk grain. It is similar in construction to hundreds now in operation in this country, but is something comparatively new for England. Chase Elevator Co., of this city, prepared the plans and specifications for the building.

Messrs. Edw. P. Allis & Co., of the Reliance Works, Milwaukee, Wis., have the order for a three-million and also a million and a half gallon pumping engine for the city of St. Paul, Minn., and the work is well under way. The engines will be Reynolds Compound Condensing Engines, and will be set up ready for work by Oct. 15, 1884.

The Kansas City White-Lead and Linseed Oil Co. have just finished a 150,000-bushel elevator, built to store and handle flaxseed. Chase Elevator Co. planned and superintended the building. This is the third large house lately built by Chase Elevator Co. for storing flaxseed; one is located at Topeka, Kan., and one at Marshalltown, Iowa.

The City of Salem Co., Salem, Ore., have sold out to the Salem (Ore.) Capital Flour Mills Co., Limited. The head office is at Edinburgh, Scotland, and the local office at Salem. This company has a warehouse at Salem, with a capacity of 200,000 bushels, which is conducted as a separate undertaking. They have also grain warehouses at Independence, Buena Vista, and Marion.

Building of the new elevators has already begun by the Farmer's Union Elevator Company, of Minneapolis, Minn. At Sabin the structure is rapidly rising. Lumber is unloaded on the site of the new house at Glyndon, south of the Northern Pacific track, opposite Bangs & Co.'s warehouse. Material is on the ground or in



transit for the elevators at Barnesville, Kragness, Carman, Angus, Argyle and Stephen. Each house is to be of 30,000 bushels capacity.

A pool was organized at Memphis, Tenn., on Aug. 12, by the Hanauer, Gayoso, City and Memphis Cotton Seed Mills, to combine their interests. These four mills aggregate a capacity of about 270 tons of cotton seed daily. It is anticipated that four of the other six mills will also pool interests. The destructive contests of the ten Memphis mills of last season will then not be repeated.

Wirt & Barber have nearly completed their new elevator at Holdrege, Neb., and have just received their second complete outfit of machinery and other supplies from W. G. Adams, of Sandwich, Ill., to be used in the new elevator they are building at Axtell, Neb. They are placing in each house one of the D. A. Wells Warehouse Fanning Mills manufactured by Mr. Adams.

The sites have been selected for four new warehouses and two new elevators, on the Fargo Southern railroad in Dakota, and two others are yet to be located. The points chosen are Graceville, Abercrombie, Fairmont, Christine, Hickson and Wild Rice. The contract has been awarded to E. S. Tyler, who proposes to have the buildings completed in time to receive this season's crop.

The Winnipeg Commercial says in a recent number: "The grain movement of the past week has been confined almost entirely to the shipment of oats to Port Arthur and other points on the Lake Superior coast. The demand even in this line has slackened off somewhat. In wheat the supply of first class hard is every day growing scarcer, and millers have difficulty in producing enough of gilt edge lots."

Seeley, Son & Co., elevator builders, of Fremont, Neb., have about completed a 20,000 bushel Seeley elevator at Grand Island, Neb., for E. R. Wiseman. The Barnard & Leas Mfg. Co., Moline, Ill., furnish the cleaning machinery; the Webster & Comstock Mfg. Co., of this city, furnish the belting and buckets; the Fremont Foundry and Machine Co., the shafting, pulleys, etc.; and A. Van Siclen & Co., the engine.

The following parties are making extensive repairs in their elevators, and have ordered their fittings of W. G. Adams, Sandwich, Ill.: J. A. Connor, Ashland, Neb.; Mulkey & Co., McPherson, Kan.; Downs & Mefford, Topeka, Kan.; Granger & Cox, Hawarden, Iowa; C. F. Mighell, Lake City, Iowa; Lynch & Rheem, Pleasant Hill, Mo.; Cochran & Co., Western, Saline Co., Neb.; Geo. H. Warren & Co., Grafton, Neb.; H. Gund & Co., Blue Hill, Neb.; H. Gund & Co., Ayer, Neb.; A. A. Thorp, Flag, Ogle Co., Ill.; H. E. & S. Selby, Golden, Ill.; E. C. Cowles, Storm Lake, Iowa; Hankins & Canfield, Sac City, Iowa; Ferguson & Willington, Waco, Neb.; James Peabody, Fairmont, Neb.; Schaefer & Finn, Sedgwick, Kan.; J. B. Stewart & Co., Buda, Ill.; White & Leacock, De Witt, Neb.; David Plumb, Maryland Station, Ill.; J. W. Morby, Harlan, Iowa; J. H. Clark, Dorchester, Neb.; T. W. Tourey, Tamora, Neb.; T. W. Tourey, Germantown, Neb.

Harmon Spruance & Co., one of the largest grain commission houses on the Chicago Board of Trade suspended on the afternoon of July 19. Mr. Spruance announced on the board that he was unable to meet the marginal demands upon him; that the outstanding contracts on the board was closed, and the differences would be adjusted as soon as the trades could be transferred; no further information could be gotten at the time. Mr. Spruance was said to be largely short on wheat and corn; and the sudden advance was thought to be too much for him. He has been in the trade here for many years and was formerly associated with J. W. Preston, under the firm style of Spruance & Preston, who was among the heaviest dealers on the board. The partnership was dissolved some eight years ago and the formed has been in business ever since for himself. Mr. Spruance has since offered to settle at fifty cents on the dollar; but a number of his creditors refused and they cite the course he pursued when Comstock failed, some years ago, demanding full payment. No full statement has been made, and some say that the liabilities are so small that he is ashamed to show them; while others think they are very large. At last accounts all but some half a dozen creditors had accepted his offer, but the latter were very tenacious.

### CHICAGO TONNAGE.

The following tables give the returns of the July tonnage for Chicago and South Chicago, as compared with those of June:

CHICAGO COASTWISE.					
Arrivals.	No.	Tons.	Cleanances.	No.	Tons.
Steam.....	645	301,957	Steam.....	647	300,879
Sail.....	636	231,033	Sail.....	899	211,651
Total July.....	1,281	532,990	Total July.....	1,546	512,530
Total June.....	1,027	499,606	Total June.....	1,028	504,271
CHICAGO FOREIGN TRADE.					
Arrivals.	No.	Tons.	Cleanances.	No.	Tons.
American.....	9	2,843	American.....	30	9,660
Canadian.....	15	5,129	Canadian.....	13	4,384
Total July.....	24	7,972	Total July.....	43	14,044
Total June.....	23	7,903	Total June.....	28	9,439
SOUTH CHICAGO.					
Arrivals.	No.	Tons.	Cleanances.	No.	Tons.
Steam.....	26	23,392	Steam.....	26	23,262
Sail.....	28	4,657	Sail.....	24	4,757
Total July.....	49	27,919	Total July.....	50	28,019
Total June.....	65	34,430	Total June.....	62	30,227

## Fires, Casualties, Etc.

The Buttz Bros., near Lisbon, Dak., claim to have lost 30,000 bushels of wheat in a recent hail storm.

Whaley's warehouse and Rearey & Co.'s grain office, at Valley Springs, Dak., were destroyed in the storm which visited that locality July 21.

Thomas McManemy, grain and feed dealer at Philadelphia, Pa., was burnt out. The loss was estimated at about \$4,000, with insurance at \$4,375.

While grain was being drawn out of the elevator of the "Logan Mills" at Lincoln, Ill., Aug. 4, an eleven-year-old boy was suffocated by being sucked down in the bin.

The Lounsbury elevator at Monroe, Iowa, has been burned, together with several carloads of wheat and oats. The loss was estimated at \$7,700; insurance \$2,700.

The elevator of Wooster, Clark & Co., at Momence, Ill., was burned July 18. The fire was supposed to have caught from some locomotive sparks. Loss, \$12,000; insurance, \$6,500.

R. Overholt & Co.'s distillery, at Connellsville, Pa., was burned July 23, with their bonded warehouse. The loss on the buildings and machinery was \$115,000. Everything was fully insured.

The grain warehouse of Heaton & Sons, at Manchester, Ill., was burned July 26, with about 100 bushels of wheat. The fire was supposed to have started from a spark from a passing locomotive.

During a terrible wind and rain storm which visited Rock county, Minn., July 21, Harrison White's grain warehouse at Luverne was destroyed. Hick's warehouse, at the same place, was also blown down.

At Lexington, Ky., on July 25, a wheat bin in McChesney & Martin's warehouse, containing 1,000 bushels of wheat, burst in the third or upper story, and, striking against the side wall, broke through, carrying with it about thirty feet of brick wall and a workman named Morton, who was unhurt. The avalanche fell a distance of forty to fifty feet and buried beneath it a wagon and mule team of Levi Grow. His son, who was sitting on the wagon-seat, and a laborer named James Hester, carrying in wheat, were buried beneath the grain. It took about thirty minutes to extricate the men, and Grow was found still sitting in the seat unconscious from scalp wounds and internal injuries, while Hester was wedged against the wagon quite dead. One of the mules was killed and the other injured.

### CORN CONJECTURES.

In an article relating to corn, a writer in Bradstreet's observes: "The writer does not pretend to say whether the price of corn will advance during the next three months or not, but is of the opinion that if the market is not oversold, and the present warm weather should continue, the farmers may throw over their small reserve stocks and supply the market, and so keep prices from raising; but as the present price (62½ cents in New York and 54 cents per bushel in Chicago) is not very high, I should advise parties who are inclined to sell for future delivery what they have not got, that there are clippers around who may shorten their claws, which have grown marvelously of late months."

### THE ELEVATOR AT NEWPORT NEWS.

The elevator is at work storing in grain, some of which at least is not destined to make a prolonged stay there, as not less than half a dozen steamers are coming here to load grain early in August. The whisky which may be seen at the railway station will also be exported, and in fact some sixteen steamers are due at Newport's News within the next few weeks. This looks hopeful, as shipping is the principal outlook of this place, in fact, what nature intended it for when she endowed it with such maritime facilities. Those who profess to know say there is not likely to be much business transacted throughout the country until a new President is installed in the White House. But Newport's News will not even wait to see him elected, but will do a tolerably good business while waiting for a great boom a little later.—Newport News Commercial.

### "PROSPECTIVE" FOREIGN MARKETS.

Commenting on Mr. Hurd's statement that there are 2,000,000,000 people anxious to buy from us, the Chicago Inter Ocean says: "Two hundred millions of these people live in Africa, and wear their own hair and nothing else. Three hundred millions of them live in India, and are supremely happy if they can earn 4 cents a day. As many more are in China, struggling to be permitted to supply their own wants, a privilege which British free trade at the point of the bayonet denies them. Our manufacturers are asked to allow their own throats to be cut in their home market, in order to crush down American labor to a point where we can undersell these barbarian foreign markets."

## Canals and Marine.

The friends of the Hennepin Canal Bill will have to renew their efforts in a different direction at the next session of Congress. The prejudice against its passage developed so much prejudice as incorporated, in the River and Harbor Bill, that its success will be exceedingly improbable, except as a special measure. The next session is a short one—only three months, and there is a bill on the house calendar reported from the committee on railways and canals, but it is extremely doubtful if this one can be reached. If an appropriation is asked, the bill will hardly be reached within the next two years, so that the prospect of its favorable consideration is remote.—Exchange.

Freights to Buffalo are bad enough, but when the Review states in dead earnest that "ten years ago vessel owners tied their boats up and refused to make a trip at less than 10 cents on corn to Buffalo," and that now "they are glad to obtain loads at 2 cents," we are forced to smile. At 10 cents a bushel on corn to Buffalo, any good vessel would not only pay for herself during the season, but have money left. We have made some inquiries on this subject of a gentleman now on the Board of Trade who was a captain of a vessel in this trade ten years ago, and he is decidedly of the opinion that the Review has been hoaxed. Ten cents a bushel for corn to Buffalo has been paid during some part of one or two seasons, but it has always been thought an exorbitant rate.—Investigator.

The value of Erie Canal tonnage last year was \$300,000,000. The wheat acreage of the West, which principally made this business, was more than 2,500,000 acres more than in 1879, and a like increase of acreage is expected this year. Although the paid tolls on the canal of \$113,000 a year were abolished, the toll receipts have leaped up nearly \$300,000. The cost of keeping up the canal is nearly \$900,000, and the revenues last year were \$1,200,000, making a surplus of over \$300,000. Before the state of New York discriminated in favor of the canals their business had run down 700,000 tons in twelve months, and since that liberalizing of rates the canals do 2,000,000 tons more business, and there has been a consequent lowering of tolls on the railroads. The Erie Canal is almost the only corrective agency of high grain freights from the West.

The remarks made by Mr. Hugh McLennan at the meeting of the Board of Trade recently on the effect of the reductions recently made by the different interests, commencing with the Government, connected with the inland transport trade, will be read with pleasure by those concerned in the transportation business of the Dominion. It is the opinion of that gentleman, than whom there are very few more qualified to speak with authority, that very great advantages have resulted from these reductions. The export trade of the port will probably not compare quite favorably with former years, but it will compare favorably with other Atlantic ports. Mr. McLennan also regards the outlook for an improvement in the lake navigation business as exceedingly cheering, and attaches great importance to the development of the Northwest and the establishment of the route via Port Arthur.—Montreal Gazette.

### THE ERIE CANAL'S FREE SYSTEM.

It has not been long since the belief was current that the gain of the transportation question was all upon the side of the railways, and that the quicker transportation of the trunk lines at rates that were nearly competitive would practically render the great work and Clinton useless. But since the Erie system has been made free, this idea has lost weight. The decline in the tonnage of the Erie Canal, which led New York to make the canal free of tolls, and to assume upon its general revenue the burden of superintendence and repair, was caused not so much by the competition of the railroads as by the competing Canadian water route through the Welland and St. Lawrence Canals and the St. Lawrence River to the sea. Doing away with tolls has put the canal upon an equal footing with its rivals, and has done much more than was anticipated in bringing back to water transportation some of its old-time popularity. Some of the arguments that were advanced as the strongest to show why water-carriage must give way, have been proven so fallacious as to cause wonder at former credulity. Among other points, it was argued that the saving of interest in the quicker transportation by rail would go far to balance the higher cost, and that the opportunity of the market would be another item of value. But it is found that during the season of moving crops, the market price for forward delivery is more than enough higher for each month to pay interest and insurance, so that there is an actual gain to the seller by the water transportation, which both saves storage and gains an advanced price. The fact that the canal boats deliver at the destination the number of bushels which they receipt for in loading, the vessel paying for the deficit, if any, while the railroads deliver whatever weighs out of the car at the destination, the owner being obliged to stand the loss if it falls short, is another item in favor of water transportation. The present status of the question, so far as the Erie Canal is concerned, is shown in the demand for larger vessels, and a perceptible agitation upon the matter of enlarging the canal. This latter point, however, is not likely to go further than talk. The canal is wide enough and deep enough to meet all legitimate demands for some time to come.—Exchange.



## Notes from the Exchanges.

Memberships in the New York Produce Exchange are selling at about \$3,500.

D. C. Hawley, cashier at the grain inspector's office in this city, has been promoted by the Railroad and Warehouse Commissioners to the Chief Clerkship, vice J. Howard Jones dismissed. Stephen Moneyenny was appointed cashier, and A. H. Smith put in the latter's place.

On the Board of Trade at Chicago the members are accustomed to appear in fatigue dress—that is, minus coat. A Cincinnati man on 'Change there last Saturday was greeted by one of the tall members, in his shirt sleeves, when he was told that in Cincinnati no member was permitted to appear on 'Change without his coat on. "Oh," said the Chicago man, "we wash up here."—*Cincinnati Price Current*.

At the recent election for officers of the San Francisco Produce Exchange Call Board Association, the following gentlemen were chosen: Directors—Wm. Dresbach, president; F. G. Berry, vice-president; H. Dutard, treasurer; R. P. Tenney, E. Ransom, H. Wengenheim and H. C. Somers. Committee of Arbitration—John Wightman, Jr., Wm. Babcock and John F. English. Committee of Appeals—B. Baldwin, I. R. Wilbur, J. Hart, R. B. Forman and John McCord.

Wm. Martin, of bucket-shop fame, who formerly ran the Phoenix, now doing business in Montauk Block, in this city, has brought a bill to enjoin the Western Union and Gold and Stock Cos. from interfering with his wires, the right to which, with "tickers," he claims to have purchased of J. L. White & Co., stock brokers, for \$2,000. Judge Hawes has issued a temporary injunction, but the defendants claim that the whole story is false, and that Martin is an old trickster.

The latest discovery made by the Market Committee of the Board of Trade in this city as to the machinations of the unconquerable Phoenix, was discovered by electrical measurement. An ingenious tap had been made by a very fine wire inserted into the cable. The wire, after discovery, was allowed to remain long enough to show its effects at the bucket-shop, and then was cut, producing another cessation in the reports. The perpetrators had not been discovered.

At an informal meeting of the grain trade of the New York Produce Exchange, held in the Call Room, on July 30, the following resolution was adopted:

Resolved, That the system of ringing out contracts set forth in the following report by the Conference Committee, be recommended to the trade for trial, commencing on the 1st of August. When it appears that several parties have contracts between each other corresponding in all respects (except as to price), and that a ring settlement can be made, the party finding said "ring" shall notify all parties thereto, leaving with each a copy thereof, and get their acknowledgments, shall be announced at the last call of the previous day. Differences on ring settlements, when presented on or before 1:30 p. m. shall be due and payable before 3 p. m. of same day.

The railroad commissioners have concluded an agreement with the owner of a building on Adams St. and Fifth Avenue, Chicago, Ill., for rooms for their grain inspector, now occupying a room in the rear of a building on Washington street. The new building of the Board of Trade is to be completed by October, and this officer must be in its immediate vicinity. Nearly all the brokers, commission, and Board of Trade dealers, it is said, will move to the new locality, and many whose leases terminated in May have already done so. Rents are expected to see-saw accordingly. Lawyers, real estate dealers and all classes of office people will quickly occupy the old quarters of these brokers and dealers. Whether the old theater of the grain traffic and calls, will become a real theater, public hall or what not, is yet to be seen.

Gossip is talking of the recent failures on the Open Board in this city, and it is current that its new Pacific Avenue quarters have not yet brought success. This is attributed largely to the difficulty in getting as timely quotations from the big board as in its old location near the chamber, from which a messenger could run over with reports ahead of the wire. The secretary on being questioned by a *Tribune* reporter, said that there had been only two failures lately, both small, Frank Field for \$680, and Brnham & Hanson for \$3,000. The dullness of business he attributed to the season and said that it was the same on the old Board. A nicer class of men, he said, were now taking the place of the old operators and the future promised well. He said that they did not care a straw for the quotations, as they made their own market.

The market committee of the Chicago Board of Trade, since the adoption some four months ago of the new system by which the Board assumes entire control of its market reports, have been baffled in trying to suppress the acquisition of those quotations by the Phoenix Grain and Stock Exchange in Gambler's Alley, who have exhibited rare ingenuity in originating successfully new devices as fast as old ones were discovered, such as the tapping of the wires under the new Open Board. The Western Union has since then had men stationed at all important points supposed to be liable to leaks, and on July 30 a new wire was discovered, and cut. But the invincible Phoenix soon worked on as briskly as ever. At this time it was learned that Ben von Phul, a prominent commission dealer of St. Louis, had leased a special wire of the Western Union, the Chicago end being located at the Phoenix, through which he claimed that he received his quotations two minutes ahead of those regularly furnished. This was followed by the entire substitution of new wires, the old ones being all pulled,

by the Western Union and Baltimore & Ohio companies. Reports were also withdrawn from an alleged commission dealer, Botsford, at 137 Madison street, a suspected bucket-shop confederate. At last reports these moves had proven successful. The shops threaten a legal attack on the Union, on the ground of its continued violation of an ordinance by keeping its wires above ground.

The building committee of the Chicago Board of Trade have recently given out the contract for the great skylight of the main hall. It is to be 60x68 feet, the largest in the United States. It is to be divided into 253 parts, 46 inches square, each in an iron frame 2x4 inches thick, with small iron rods crossing it a foot apart. Two iron girders, 7x12 inches, will be stretched, in each direction, across and above the great opening in the ceiling, and these will be hung to the roof, forty feet above them, by iron rods two or three inches thick. The cost will be \$5,000.

There has been more or less talk recently regarding a probable deal in August or September corn. The receipts have been small and only a limited portion has been fit to grade No. 2. Thus far the deliveries on August contracts have been insignificant, and if any short interest of moment exists it seems likely the bears may get "squeezed" if they are not very careful. At present there are only 107,026 bus. of No. 2 in store, and I am told that the bulk, if not all, of it is controlled by the leading bulls. Last year the stock of this grade was over 800,000 bushels, while the price was about the same as now. I also understand that the shorts on August oats are commencing to feel somewhat anxious. The price of spot oats is now fully 2 cents per bushel above the August option, and, of course, no deliveries were made, the bears expecting the new oats will begin to arrive ere long. I am told that the consumption of oats has been larger of late because of the scarcity of corn.—*N. Y. Produce Exchange Reporter*.

### WHEAT AND PROSPERITY.

In the opinions which Gould and Vanderbilt gave a few days ago for publication, both laid special stress on the bountiful outlook for crops as a prime factor in the better times they predicted. What they mean by better times is higher prices for stocks and bonds and lower prices for wheat, and corn, and pork. High prices for these wizards of Wall street imp'y in their philosophy low prices for the farmers.

The reasoning of these gentlemen appears to have had its effect. Prices in the stock market have had a very handsome rise since the appearance of their proclamations. Everywhere is to be heard the echo of their predictions with regard to the crops. Although the bull movement cannot yet be said to be a popular one, since it is mainly confined to the speculators of Wall street, it is still true that an increasing number of small men—lamb—have ventured back into the brokers' offices to make speculative purchases. Gould and Vanderbilt, and the whole flock of their fleecy followers, have but one main principle, which is to make it appear that stocks and bonds will be scarce and dear, and that grain will be plenty and cheap. The same influences that work in the stock market to put up the prices of securities will be exercised in the Boards of Trade to depress the prices of farm products. The railroad stock gamblers care nothing about the farmer. If he only furnishes them with abundance of tonnage it is a matter of perfect indifference to them what compensation he may receive for his labors.

The fact that the prices of corn and wheat have been advancing simultaneously with the advance in stocks, though not to the same extent, suggests that there may have been some flaw in the argument by which Vanderbilt and Gould have endeavored to induce the lambs to come back into the stock market, and have encouraged the bears to sell down farm produce to a lower level of price. Midsummer is always the time of flawless crop prospects. Then, if ever, come perfect days. But even in this heyday of the farmer's hopes the careful observer can detect plenty of evidence that the universal chorus about the extraordinary exuberance of the promised harvest is overdone. The winter wheat crop was unfavorably affected by many causes. Drouth, cheat, insects, have all taken their tribute out of it. The wheat that is coming to market is grading below what was expected. From a large number of points come the statements that threshing proves the yield per acre to have fallen below the first estimates. Corn is the subject of the most buoyant anticipations. But the thermometer is one of the surest indicators of the welfare of the cornfields, and the thermometrical record of the summer shows it to have been too cool to afford the growing corn the full supply of solar caloric that it requires to keep it in motion along the road to maturity. A perfect corn crop is only had when there is a steady succession of nights so warm that one can hear the corn growing in the fields all the night through. Cool nights and a wet June have left their marks in the unevenness of the cornfields. But no matter how brilliant might be the outlook for the corn crop, it seems a little premature to people outside of the stimulating air of Wall street to cash the crop, as is now being done, in the prices of some stocks before the crop has been gathered. And who will give the stock-buying lamb a guarantee against the effect of frost in the first half of September?

The threshing of wheat has been interrupted over wide stretches by untimely rains, and from the north comes a report that serious damage has been done by sunburn. It is estimated in Minnesota that the crop there will be reduced by this cause 10 to 15 per cent. A dispassionate

view of the farmers' situation discloses a prospect of fair crops in every direction, but an extraordinary yield is exceptional rather than the rule.

There are other facts which those who are tempted to follow the lead of Wall street in selling wheat and corn short should remember. The crops abroad are by no means in first-class shape. Bad harvest weather in England has sent a number of buying orders here in the last fortnight. The prospects in France and Russia are constantly less and less favorable. The stocks of grain in England and in this country are not much more than half what they were a year ago. The shortage of last year's wheat crop in this country will be certainly felt in the markets this year, though it had so little effect last year. The prices of breadstuffs have been declining like everything else, and to speculate in them now for a further decline is to ignore the speculative law of waves which sends prices up after they have gone down.

Some very careful statisticians assert that last year the world ate a hundred million more bushels of wheat than it produced. It was able to do so without checking the downward movement of prices, because the fine crops of the previous two years had left a large surplus in the granaries of the world. But this surplus is now much reduced, as the lower stocks in sight all around indicate. The farmers keep themselves as well posted on these facts as the speculators, and it is not risking much to predict that they will not hurry their grain to market this year at any price the speculators may choose to offer them. The anxiety for tonnage that inspired the exaggerations of Messrs. Vanderbilt and Gould in their statements about the probable glut of American wheat is not felt by the farmers. They do not care whether Gould and Vanderbilt run their freight-cars full or not. They want a full price for what they sell, and, in view of the probable demand from Europe and the prospect for nothing more than an average yield here, our farmers are more likely to hold their wheat for a higher price than deliver it to the speculators of the Board of Trade for less than it cost to raise it. And there is more prosperity in a moderate crop at remunerative prices than in a glut to be sold at a loss even if the moderate crop does not afford so many tons to be taxed for the production of dividends on watered stock.—*Chicago Tribune*.

### FATAL MARGIN TRADING.

The recent suspension of a prominent commission merchant on the Board of Trade was announced as follows: "I am at present unable to meet the marginal demands made upon me." Most of the suspensions on the stock and commercial exchanges are announced in this way. The intimation is that outstanding trades are to be closed, not because the suspending merchant is insolvent, but because he has not the ready cash to put up the 10 per cent. margins demanded of him. In many instances this is true, as it is represented to be in the present case. A commission merchant may be rich in real estate, or have at least ample property to cover all his actual liabilities or those which are likely to arise from unsettled trades, but if he has not the ready cash in bank to respond to any call upon him for margins under the rules he is forced to suspend, and trades are closed generally at a loss which might perhaps be carried forward to a profit if they could be sustained. Cases of peculiar hardship are frequent. A man in the mercantile business who has assets in excess of his liabilities is usually able to make arrangements to continue his business, even if he cannot meet some immediate demand upon his exchequer. A satisfactory showing of his affairs induces his creditors to give an extension, or enables him to secure accommodations in bank, or to mortgage his property and obtain loans in that way; he has the time to make his assets available. But in the Board of Trade transactions the merchant must suspend immediately; he must put up his margins within an hour when he is called upon. The difficulty is increased by the practice of trading on the Board without exacting margins at the time the trades are made. It is common for members of the Board in good standing to buy of and sell to each other without depositing the cash to secure the contract. One party to the transaction may call upon the other suddenly because the condition of the market becomes suddenly precarious, or because he hears rumors affecting the other's solvency. In this manner every trader or commission merchant is constantly subjected to a large and immediate demand upon his cash resources when he is not expecting it, and his inability to meet such demand without delay forces him into suspension, no matter how large his inconvertible assets may be. Whether or not there is any remedy for this manifest injustice under the practices of the Board of Trade must be left to the Board to determine, but it is a fact that the injustice is frequent and enormous. If there is no remedy then the blame must fall upon the system of margin trading, and it is another illustration of the hazard and uncertainty of the Board of Trade system of doing business. It is not the speculators alone who are subjected to this danger, but men who do a legitimate commission business and take no risks on their own account. If it is not possible to devise some means whereby a solvent merchant can be protected from disaster when he can show clearly that his assets exceed his liabilities, then the deposit of margins should be made obligatory in every trade, and not left to the option of the contracting parties. Under such a system the volume of speculative business might be materially curtailed, but men could only do business according to their cash means, and the jeopardy of trading would be largely avoided. Unless some such plan be adopted the day will come when margin trading will be so hazardous that it will be abandoned.—*The Tribune*.



# THE AMERICAN ELEVATOR AND GRAIN TRADE

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## ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

## CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

## THE CORN SHELLER.

The man who cares to philosophise on cause and effect can adduce the corn sheller as a simple cause leading to great results. Few articles of commerce are more unwieldy than ear corn; and corn-producing countries that have not the sheller, do not export corn. It is, of course, possible to handle ear corn through an elevator and we know of a number of such houses, one of them in this city, with enormous storage capacity; but it is within the bounds of reason to maintain that without the sheller, this country would never have produced over a billion and a half bushels of corn in a single year. The introduction of the sheller simplified the question of handling and transporting the grain. The sheller is not a complicated or costly piece of machinery like a threshing machine; and of all cereals corn is the cheapest to get from the field to the consuming market. Corn is the commoner's grain. Corn is king; long live the king.

## SHIPPING ON THE LAKES.

The expectations of an active and profitable traffic on the lakes early in the season that the facts as to depleted receiving markets, and fully stocked warehouses, and ore and lumber deposits promised, have been bitterly disappointed. Almost at once the trade, for which unusually large preparations had been made, dropped down. The railways, finding their cars empty, came down on freight rates nearly 50 per cent., and soon swept away the 26,000,000 bushels of wheat stored in the Chicago elevators. At first grain was sent in freely, but the low prices soon checked this. The grain marine then entered upon the lumber trade, and fleets came loaded from Lake Huron and Canada to Chicago and Tonawanda, the two receiving ports, bringing to the former 100,000,000 more feet of lumber than last year, but shipping nearly one-half less. The ore piled up at shipping points was soon carried in over-abundant quantities to the receiving points. Such is the general depression that manufacturers are actively discussing the question of limited production. At time of writing a call has been issued for a convention of all parties interested to meet in a few days in Chicago. As many manufacturers are threatening to close up their mills, the freight business does not seem to present a bright prospect. Coal is the only branch of business that has been of late active, but that has not escaped depression. For some weeks the failures of the mines made cargoes scarce, but stock is now arriving abundantly. Vessel owners are basing their hopes on moving the new crops; but it will require an immense amount of grain to fill all

their hulls. A large amount of tonnage, it is said, has been already placed in ordinary here.

## THE HUDSON BAY ROUTE FOR GRAIN.

The Canadian government have just appropriated \$70,000 for the establishment of meteorological stations at the seven carefully selected most important points on Hudson's Bay. These will be equipped with observatories made in sections and sent out there with all the needed appliances to make observations as to tides, ice drifts, and meteorological phenomena generally. They are each to have an officer, two men and an Esquimaux interpreter. The steamship Neptune, sent two years ago in search of Lieut. Greely, sailed from Halifax on July 22, in command of Lieut. A. R. Gordon, of the Canadian Meteorological service, for the purpose of establishing these stations. But the scientific objects are subsidiary to the practical ones, viz., the determining whether this water route to Europe is available for grain and other transportation, during a sufficiently lengthy part of the year to pay for its improvement. We have already published fully the very favorable views of the Manitobans on that subject. Lieut. Gorrington, in behalf of the Northern Pacific Co., investigated this matter about three years ago, and reported that, in his opinion, no successful trade by this route was practicable, on account of fogs as well as ice, which he said "would hardly leave an average of six weeks of tolerably safe navigation," and this period, he said, varied with the seasons, and navigation would often be interrupted. This matter the government proposes to settle by the observations described.

## AUTOMATIC SPRINKLERS.

We recall no means of fighting fire that has proved so effectual in comparison with its cost, as the various automatic sprinklers that have come into use in the past few years. Of course there are grades of excellence in these sprinklers, as in everything else in this mundane sphere; but even the poorest of these have done good service, just as a watchman who sometimes falls asleep, is, nevertheless, better than no watchman.

And an automatic sprinkler does perform exactly the function of a watchman. If it be a good one it never sleeps, but at once detects the unusual heat, and what is more, acts in the most effectual manner. A small quantity of water applied at the right time is far more effectual in quenching a fire than a dozen streams from engines after the fire has once obtained headway. A good example of what a good sprinkler will do is given in this issue by Marcus Ruthenburg, of Cincinnati, where an automatic sprinkler prevented a fire in one of the most insidious places in a mill or elevator—the elevator head. This is only one of many instances that could be cited where automatic sprinklers have done good service. The fire loss in the United States is appalling, and every means that will check fires or render them less disastrous is a national blessing.

THE HARRISON CONVEYOR Co., of this city, are doing a good business. Among the orders which they report are many for carrying coal, which the Harrison Conveyor does successfully.

THE price of wheat is determined by the price of that portion that is exported; this is estimated as only three and a half bushels to every one hundred consumed, or 3.4 per cent. of the total crop. Of the corn crop of 1880, aggregating about 1,755,000,000 bushels, the amount exported was about 43,500,000, making a home consumption of nearly forty bushels for each one exported, or 2.5 per cent. But a large proportion of this crop is represented in our exports of pork, beef, etc. The value of these products that were exported in 1882 was a little over \$110,000,000. These are the values that settle the final market price of corn.

## PARTIALITY OF LIGHTNING FOR GRAIN.

Darwin established very clearly that the amount of red clover in a neighborhood depended largely on the number of cats in the vicinity. And it often happens that things seemingly the most remote have a very intimate relation to each other. It has often been noticed by underwriters that lightning evinces a very decided partiality for granaries or grain. Items like the following are common:

A young man loading wheat near Mason, Ky., was struck by lightning and killed, and the load of wheat burned.

At Galien, Mich., on July 24, during a thunder storm, lightning struck the barn and granary of G. A. Blakeslee, destroying it. The barn contained 600 bushels of wheat and 40 tons of hay.

We could multiply such instances almost indefinitely; but every one must have noticed how much more frequent is the destruction of barns and granaries by lightning than houses. One explanation by an insurance man is that hay and grain, being generally stored in a somewhat damp state, give rise to a vapor which is an attracting influence. But this view loses sight of the fact that in autumn, when the granaries are the fullest, the lightning is not frequent; while in July, when they are generally empty, the lightning is most frequent. So the partiality of lightning for barns and granaries yet remains to be figured out by the underwriters.

## WHEAT PRICES.

The question as to whether the prices of wheat are at present disproportionately low, is answered by the N. Y. *Produce Exchange Reporter* with the statement that No. 2 red winter, a year ago sold at eighteen cents per bushel more at a time when, in the writer's opinion, there was less old wheat in the world than now. This country, Great Britain, Austro-Hungary, all held larger stocks then, probably as much more as their production will exceed this year that of last. Under such conditions, if true, this six shillings per quarter lower price now may be accounted for in three ways, any of which may be true in fact, by a combination of the three: The present reserve may be a little larger than that from the crop of 1883-4; present prices may be a little too low; while those of last year were, perhaps, a little too high. But the writer does not believe that present prices will draw as large supplies of wheat to Western Europe, from the wheat-exporting countries in 1884-85, as was obtained in the previous year; and as the old stocks are smaller, and the home crops promise no material increase, a higher bid would seem needful in order to obtain the required supplies.

THE commission firm of Cabaniss & Co., Petersburg, Va., has changed its style to Cabaniss & Lunsford, under which it will do business in the future.

J. B. HOBBS, the Prohibition candidate for Governor of Illinois, is a member of the Chicago Board of Trade. Mr. Hobbs engineered the big corn deal of October, 1881, if we remember rightly.

IN some quarters the Millers' Association, of Minneapolis, is regarded as a monopolist, and those who so regard it will be glad to hear of the withdrawal of one firm, D. R. Barber & Son, proprietors of the "Cataract Mill," from the Association. It is said, however, that this withdrawal will in no way affect the stability of the Association.

THE rates of lake cargo insurance, it is stated, will be advanced Sept. 1. The nominal pool rate is based on 25 cents per \$100 to Buffalo. But outside parties have taken the business mainly by writing at 20 cents. These outsiders also certify to an indemnification for losses of any kind on cargoes in transit, and thus cover all the risks that are released by the "iron-clad" bill of lading.



## Editorial Mention.

THE Chicago Board of Trade evidently means to keep up the fight on the bucket-shops.

FAY PARSONS, of Dunlap, Kan., in subscribing, adds the postscript: "I am pleased with your paper."

W. W. DAVIS, grain commission and shipping merchant at Duluth, has placed us under obligations for favors.

THE Cotton Exposition at New Orleans, opening on Dec. 1 and continuing until June 1, 1885, will evidently prove a stupendous affair.

EVERYTHING points to the largest crop of corn that this country has ever had. The figures given, based upon reliable data, are almost staggering.

THE FROST MANUFACTURING CO., of Galesburg, Ill., in sending us a list of recent sales, say, "Trade is good, with every prospect of still increasing."

THERE has been some talk among Chicago Board of Trade men of erecting a private elevator for grain storage, as the charges in other Chicago elevators are deemed too high.

MR. P. F. MURRAY, of Harlan, Iowa, writes: "Your sample copy of the AMERICAN ELEVATOR AND GRAIN TRADE for July at hand. I like it, and inclosed find amount of subscription."

TRIMBLE & Co. and Warner H. Howell, of Philadelphia, general grain, feed and seed commission merchants, have consolidated, and the style of the new firm, doing business at 104 Walnut street, Philadelphia, is Trimble & Howell.

MR. H. H. HARRISON, of the Harrison Conveyor Co., this city, recently met with a painful accident, his hand being crushed in machinery. The accident was more painful than serious, but all such accidents are serious enough to the party most interested.

AN English judge decided at Cambridge, the other day, that a buyer is justified in rejecting grain purchased on sample, if the bulk is not equal to sample, even if, as in the case in dispute, the first buyer had re-sold the grain and forwarded it on to his buyer without first testing it.

MESSRS. BARNETT & BURDETT, of Minneapolis, Minn., succeed L. C. Barnett as the builders and furnishers of round and square elevators. The firm write us that business has been very satisfactory thus far this season, they having had a number of contracts for round elevators at various points.

W. D. HOWELLS is said to be writing a romance upon the "Elevator." Whether the subject is the great American receptacle for grain or the equally great American "lift" in high buildings, or is purely moral and intellectual, deponent saith not; but the locality from which the writer hails makes the latter probable.

L. T. DEROUSSE, of Camden, N. J., writes us: "You can rest assured that so long as the present standard of the reading matter of your journal is kept up, my name will be on the list of subscribers. I am surprised at the amount of information derived for a fraction over eight cents per copy. Truly this is the day of cheap literature."

At a meeting of the Montreal ship-owners, held on July 31, it was unanimously resolved that the recent overcharges levied by tugs for tonnage be referred to the courts for settlement,

as the interests of that pool and the trade demanded that these outrageous demands as they are called, should be resisted. The ship-owners present pledged themselves to furnish the necessary funds.

THE *Toronto Globe* calls the grain elevator at Halifax, Nova Scotia, "a huge monument of folly and reckless extravagance," and adds: "The elaborate interior of this ghostly sepulchre has but once been soiled with the dust of a grain cargo. One solitary, individual, lonesome cargo has passed through this fitting symbol of the collapse of a policy which was conceived in ignorance of the country's needs."

ON more than one occasion we have called the attention of our readers to the desirableness of sheathing and roofing their buildings with sheet-iron. Elevator men and others who contemplate doing this should read the advertisement of the Porter Iron Roofing Co., 101 to 105 West Front St., Cincinnati, and send for their descriptive circular. They are large manufacturers of sheet-iron roofing, siding, and ceiling, suitable for all classes of buildings.

THE statement that J. Howard Jones was removed from the Chief Clerkship of the Grain Inspector's office for political reasons, is denied. It is said by the railroad and warehouse commissioners that Mr. Jones was removed solely because the new Chief Inspector, Mr. Frank Drake, having learned the ropes, there was no further need of retaining Mr. Jones. We hope for the honor of the state that this is so.

PRODUCERS in England, as also generally throughout the world, are anxiously questioning as to what crop should replace wheat there, the price of which has become too low of late for profit to the farmer. If this question be satisfactorily answered, the result in a few years will be to advance the price again of wheat. Wheat bread users will continue to demand this cereal, while the area of the production of good wheat is far from being unlimited.

THE Hennepin Canal was temporarily defeated in Congress; but to the honor of the American people, no such record is exhibited as in the case of the Manchester Canal Bill in the British Parliament. It is said that "the expenses" of the promoters and opponents of the Manchester Canal amounted to the enormous sum of \$1,300,000; most of this sum being spent to defeat the bill. Think of this shining example of incorrupt legislation, ye lovers of things British.

THE *Toronto Globe*, in reference to what it styles a nonsensical telegram from Winnipeg, to the effect that Manitoba would have 5,000,000 bushels of wheat to export this season, states that the net export of the whole of Canada in 1883—the largest ever made—was of wheat and flour so estimated, about 6,800,000 bushels. And while such an exportation from Manitoba would be a splendid thing, and will be made some time in the future, that paper thinks that time has not yet come.

A PROMINENT Chicago vessel-owner is reported to have recently received a letter from a correspondent in Montreal, stating that the opinion there was steadily gaining ground that the Dominion Government was about to yield to the determined pressure brought to bear upon it to free the St. Lawrence Canal system entirely from tolls. A great deal of persuasion has been required and used, and the example of the Erie Canal steadily held up. The Marine Department, it is said, has also been convinced of the necessity of deepening the Welland to a uniform depth of fourteen feet, and it has announced that this will be done in time for the navigation season of 1886. Ports Colborne and Dalhousie have been improved so as to admit vessels of this capacity, and the foundations of all the canal structures are at the requisite depth; the banks in some places need to

be raised, which, when completed, will give the uniform depth above stated, so that vessels carrying upward of 50,000 bushels of grain can pass through without lightening, thereby diminishing largely the cost of transportation.

PARTIES who wish to grind any sort of substance, whether cereals, minerals, vegetables or anything else that is ground in the course of trade, should send for a descriptive circular of the Bogardus Eccentric Mill, made by J. S. & G. F. Simpson, 26 to 36 Rodney street, Brooklyn, N. Y. A list of some of the materials on which the Bogardus Mill is used is given in the advertisement of this firm elsewhere in this paper, as well as some of the special features of this well known mill.

ONE of the most striking cards in this issue is that of Messrs. F. H. Peavey & Co., of Minneapolis, Minn., and Sioux City, Iowa, which can hardly fail to strike the eye of the reader. Messrs. Peavey & Co. are young men, fully alive to business needs and business methods, with ample capital and ten years' experience in the business. They thus possess every requisite for taking care of the best interests of their customers. Their card gives the general scope of their business.

JUDGING from the number of orders received, and the wide stretch of territory which these orders represent, the Skinner Engine in its various forms must be one of the most popular engines in the country. Notwithstanding the dullness in nearly all branches of trade, the manufacturers of this engine, Messrs. Skinner & Wood, of Erie, Pa., have been filling an unusually large number of orders in all parts of the country, many for elevators in the West and Northwest. Their fine catalogue will be sent to parties writing for it.

MESSRS. HOWES & EWELL, Silver Creek, N. Y., have just issued a new illustrated catalogue of the well known "Eureka" line of machines. It embraces forty neatly printed pages, illustrating and describing the Eureka Smut, Scouring, Separating and Brush Machines, the Eureka Magnetic Separator, Silver Creek Flour Packer, and their line of separators for milling and warehouse purposes. Messrs. Howes & Ewell request parties using such machinery, who have not received a copy, to make application to them for one.

IN a letter to the editor of this paper printed elsewhere, Mr. Schlesinger, secretary of the Cockle Separator Manufacturing Co., of Milwaukee, takes exceptions to some statements recently made in the *New York Sun* and copied into a late issue of this paper. A correspondent in the East who sends us a clipping from some paper stating that a fanning mill made by the S. B. Van Derzee Mfg. Co., of Gouverneur, N. Y., removes all the cockle from wheat. So the *Sun's* informant should revise his information.

WE copy from the *Chicago Times*, of Aug. 9, the following favorable notice of a prominent grain commission house of this city and Milwaukee, which will be of interest to our friends handling and shipping grain:

Chandler-Brown Co. is so well and so widely known throughout the Northwest that any extended mention of it would be superfluous. The house has an unblemished reputation for business ability and honorable dealing, and a special faculty for holding custom, both East and West. The success achieved by this firm during the last few years is a strong corroboration of the old theory that "the fittest survive." While many another house has sprung suddenly into notice and boasted of its unlimited capital and great connections for a brief season and then disappeared from the gaze of men, this firm has steadily gone on making an enviable record and gaining in public confidence. The firm maintains an extensive establishment at No. 177 LaSalle street, in this city, under the personal supervision of Mr. J. A. Brown, a gentleman who has served an apprenticeship in all the departments of the business, and also one at Milwaukee, where the Messrs. Chandler reside. All are gentlemen of honor and ability. The house has been organized and doing business since 1861.



## THE RAILROAD QUESTION.

Two years ago, at the annual state fair of Iowa, held in September, the Hon. Jas. Wilson took occasion in his address to review briefly the history of railroads in that state and the country at large, and to show their immense importance, especially as indicated by the legal conflicts of the state with the companies as to their control in respect to such matters in their management as affected public interests. While every year and month increases the mileage of our roads, and complicates by variation of circumstances these relations, the actual status of these matters has changed but little since then. After many years of litigation the Supreme Court of Iowa decided in 1874 the right in general of the state to regulate the management of those roads. The birth of our railway system lies within the memory of men now living, and its rapid progress is shown by the facts stated that at that time they were over 100,000 miles in length through states and territories, extending through remote and wild regions, and aggregated one-half the railway mileage of the world. The results are too grand and too clearly seen, in the opening up of all the vast mineral, agricultural and manufacturing resources of our great country to need repetition, the great factor of trial and conflict being the sudden and great changes made by them in creating, increasing or destroying local values or industries.

Iowa is a striking representative of one of our great mid-continental states, of exhaustless fertility, cultivated by an intelligent and enterprising people. Through it pass from the farthest West on to the Atlantic, and back again to the Pacific Slope, a vast home and foreign traffic, while from it pours in increasing and richer growing streams the surplus of her agriculture, manufactures and native products. Senator Wilson said the state then had 6,000 miles of railway, extending to every county, operated by thirty companies representing an aggregate of \$240,000,000 capital; their net earnings were in 1884 five per cent. on the above sum. Their actual cost cannot be ascertained; they were assessed at nearly \$26,000,000, or about one-sixteenth of the entire assessed values of the state.

Since the decision mentioned above, permitting state control, experimental legislation has been intense and varied, and cases of litigation innumerable. Some twenty-three decisions as to principles and disputed points were enumerated by the speaker as having been settled, involving most of the great questions as to discrimination in freight rates for localities or individuals, the questions of rates in general, the care of property, especially live stock committed to their charge, and other points of like general import, until the rail traffic within the state has been made, as far as practicable by rules and custom, satisfactory to all interested. But meanwhile, the control and regulation of inter-state traffic, which no state can reach, and which the general government has so far, except in appointing from time to time commissions of inquiry to examine and report the facts, has utterly ignored, is neglected. This vast and increasingly important matter has been left to the entire control of the companies themselves, checked only by the exigencies of competition both of other roads and waterways, and public opinion, which seems a light weight in the balance with an American railroad magnate or ring. But the results of state legislation, and the effects of the state commissions, accessible to all with the developments through the great association of shippers, dealers, producers, manufacturers and exchanges, have opened the mind of the public to better methods, and they are now knocking at the door of Congress with many-handed strokes and many-voiced demands for judicious legislation relative to inter-state commerce. No more striking illustration of the need of this action of the government can be shown than is seen in the matter of pools. The Supreme Court decisions of almost every great state has declared pools of any kind unconstitutional; and when entirely within the states themselves they have stopped them. Whatever power for evil they may have their practical necessity in steady-

ing rates, checking the fluctuations, and stopping the disastrous cut-throat quarrels, has become apparent to all careful observers. The entire ownership of our roads through holding these bonds is rapidly coming out of foreign into American hands. While the fluctuating watered stocks are subjects of speculation mainly on 'Change, these bonds are becoming more and more the most secure and valuable securities. Congress cannot long resist the demands of this growing national money, as well as trade interest, and will at length doubtless legalize the pool, and restrain it by just laws, while a general commission, with judicial and executive power to check the wrongs of discriminative greed, etc., by general laws alike just to all parties concerned, will be appointed outside all political or party influence, simply in the interest of trade.

MESSRS. SEELEY, SON & Co., elevator builders at Fremont, Neb., write us under date of Aug. 2: "We had been intending to send you some news items, but have been so busy of late that we let it pass with some other things we did not have to do. The writer has been over nearly all the eastern half of Nebraska the last three weeks and never saw corn that could compare with the present crop, excepting a few small patches that are badly out with hail." Messrs. Seeley, Son & Co. report themselves as busy, as the amount of work they are doing this season would sufficiently attest.

THE Phoenix bucket-shop of this city seems at length to have been outwitted in the matter of surreptitious wires, and only procure now their reports through spies who are, when discovered, ejected with more force than politeness. A young man named Brown, who has been supplying the shops at Indianapolis, Toledo, Detroit, and Jackson, Mich., with these spied out reports, has found these harsh methods too uncomfortable for endurance, and has telegraphed his customers that the reports would be temporarily suspended. The market committee feel sanguine, from recent results, of ultimate entire success.

RECENT statements as to the grain shipments at Montreal, as shown by the revenue returns of the Harbor Commissioner for July, give a favorable report of them as compared with those of last year at that date, the number of steamers arriving and departing being considerably in excess this season. The increase of grain shipped from Chicago and the West generally, it is said, has been immense; while the contracts reported as made indicate that the traffic during the remainder of the open season will equal, if not largely exceed, that of any previous year. The grain still remaining to be shipped, and the abundant new crop, promise a prosperous business, with advancing prices.

THE grain receivers and commission men of St. Louis, Mo., have been making complaints on a matter that has been frequently the subject of agreement in this city, between our shippers and inspectors, as to the grading of wheat; to the effect that it is graded so low as to drive grain from that market. A petition, extensively signed by these parties, drawn up on 'Change, has been presented to the Board of Directors requesting that this evil be rectified. The statement is made that so-graded No. 3 or No. 4 wheat is bought up in St. Louis and mixed with No. 2, but sometimes by itself, and sent to Chicago, and graded in that market No. 2.

THE actual possibilities as to the cheapness of grain and other transportation are not as yet clearly determined. France, it is said, though gridironed with railways, still expends many millions on her canals, that are the people's highways for local traffic. This should be a practical example to American shippers and producers, in order to teach our railways a lesson, by wholesome competition, as to their duties to public interests. There is probably no one factor of traffic whose steadiness, reliability and utmost practicable cheapness are of so much importance to trade as this one of transportation, and the highest and

best results will never be attained until the management of railways ceases to be by a series of speculating rings, under the control of the Lords of Money on 'Change, and is placed under the government of legitimate business principles, and honorable, sagacious business men. This, with reasonable profits, will give to the public, in decreased prices of freight and increased facilities of commerce, the benefits of the great inventive improvements and other advantages that our country is hourly opening to our great industries.

A CANADIAN Pacific Railway magnate, it is stated, estimates the surplus of wheat on that line for export, from the present crop prospects, as at least 7,000,000 bushels. English firms have promised, he says, to pay \$1.40 per bushel for No. 1 hard at Montreal, while the freight charges via rail and lakes, including elevator costs, will be 27½ cents. This assures the producer at least \$1 per bushel for his wheat. But, *per contra*, it is said that while a few may obtain this price, the majority will not, as only 175 miles of branch road are in operation, and in many sections 40 cents per bushel will be required to get this grain to the railway stations. Much of the wheat may get also frozen. Some reasonable doubt is cast on these British promises as to price. Buyers will doubtless obtain their grain at the lowest rates possible.

THE Dickinson-Robison flaxseed case has been finally disposed of by the Chicago Board of Trade, after dragging along for some two months. Albert Dickinson, representing in fact Hardy & Metzger, of Logansport, Ind., non-members, brought up the case, which was in reference to 40,000 bushels of flax-seed stored with M. I. & J. Howard Robison for the Logansport firm on which warehouse receipts were issued. The Robisons disposed of the seed and were unable to make good the difference between the market price and the original cost of seed. No damages were given by the board, the charge being uncommercial conduct, which was answered in defense by the terms of contract and the verbal agreements, which proved satisfactory to the former, and the case was dismissed. J. R. Bensley was the plaintiff's counsel, and H. W. Rogers acted for the defendant.

It has been for a long time claimed by observers that there would be an immense demand for our corn in Europe if its great food value was once appreciated there by the people, who use a far inferior breadstuff, and vegetables simply from the want of knowledge as to how to make palatable bread from American corn. This is always a matter of surprise to the American abroad, who knows the value and excellence of the latter, and its comparative cheapness, to see the consumption there of the ordinary, black, distasteful and more costly loaf. The French people almost entirely ignore our corn and it is next to impossible to obtain any good corn meal at Havre or any of their ports. There is a steady increase in the use of corn for feed among English wealthy stock raisers, who, while able to sell their oats at over 90 cents, can buy American corn at \$1 per bushel, whose feed value is double that of the oats.

MR. PRESCOTT, of the Oregon Railway & Navigation Co., in reply to a letter addressed to him some time since by the Board of Trade of Walla Walla, W. T., requesting a reduction on the rates of wheat freight to market this fall, replied that all action in the matter must wait until the negotiations for a lease to the N. P. Road were determined. This reply was very unsatisfactory to the producers and dealers of that section, and regarded as simply a failure to realize the situation of the farmers and the immense importance of this transportation question to all concerned, while by many the reply is regarded as simply equivalent to a refusal. The Union of that city says that as those negotiations will not be concluded before September, speculators would be the only ones to realize any advantages from a reduction then. The writer shows that this course will unfavorably react upon the roads



themselves, as farmers will be handicapped and unable to furnish the freights that a liberal policy would stimulate and render profitable. This will have, too, a still wider indirect range of influence, by cutting down the demand for luxuries, with which all can and will largely dispense, and thus greatly checking mercantile traffic. It is also predicted that farmers will raise stock in place of grain that can carry itself to market and dispense with the railroad. These and similar suggestions are being urged upon the consideration of the Railroad and Navigation Company.

MESSRS. R. S. MAYNARD & Co., prominent of this city, in a note to the *Chicago Tribune* of July 31, referred to a reported statement gotten from Mr. R. P. Fish, ex-chairman of a joint committee of the associations of grain receivers and shippers appointed at a meeting called for the purpose of making the weight certificates of this transfer house regular on the Board. The *Tribune* had called it a "deadlock," but the note states that the matter has been accomplished. On July 24, when their house opened for business, all the grain taken over the Lake Shore R. R., except that from store, passed through their hopper scales. The trade generally, says the note, are satisfied with the fees, and some of the heaviest dealers are having all their Lake Shore shipments weighed by their house. A few think that they should have hopper-scale weights at the same rates as they have been paying for track-scale weights, while others believe that no charges should be made for re-weighing.

THE Chicago Board of Trade has recently posted an amendment to its rules, creating registered memberships for the representatives of firms whose members are also members of the Board, and who pay the fees. This amendment requires that those registered memberships be posted for thirty days after their issuance. These are transferable *pro forma* at the desire of the firm. In addition to the direct claims against the firm or member registered, they shall be liable for only such claims as are incurred by the party in whose name it is issued acting directly for the firm. No voice is allowed, however, to those registered members in the affairs of the Board. Under the present plan all clerks doing business on the Board have had memberships paid for by the firms they represented. These have at times been hypothecated for debts, under the supposition that they were private property. As the clerks were privileged to vote also, it is said that the commission men have sometimes been outvoted by their clerks.

THE Wells-McGeoch lawsuit, at Milwaukee, has come to a standstill to await the decision of the Circuit Court as to whether McGeoch must answer certain questions touching his deals in lard and wheat.

MR. N. J. STRATTON, of Maryville, Mo., writes, "Your journal gets better with each issue. Your notice of my property for sale brought me several responses."

### THE BUCKET-SHOPS.

At last there are signs of disintegration in the bucket-shop nuisance. These gambling dens are finding it harder and harder every day to get the quotations which are necessary to their business. The decisions of the courts have given the Board of Trade complete control of its own quotations, and the Board is determined that the bucket-shops shall not have them. Since the first of the year no quotations have been furnished from the Board, and the gambling-shops have obtained them only surreptitiously. But the board committee has been so active in running down the leaks that there is now reason to hope that access to the quotations will be shut off completely before long. The proprietors of the bucket-shops are evidently making up their minds to this, for one or two of them have already closed their doors, and others are believed to be getting ready to quit. They should not stand upon the order of their going, but go at once.

All the members of the Board of Trade should lend the committee every assistance they can in this war upon the bucket-shops. The reputation of the Board of Trade and its members is largely involved in the outcome.

The common talk of Board of Trade gambling is due mainly to the bucket-shop operations. Much of the speculation on the Board is an incident of its legitimate business, and often is a necessary and useful adjunct of trade. But the bucket-shop operations are gambling, pure and simple. They differ in no essential respect from the bets which are made in the pool-rooms on horse races and base ball games. The worst feature of this gambling is, that it is brought within reach of the poorer classes—clerks, mechanics, and salaried people. A man or boy who can obtain possession of a few dollars, whether by honest means or foul means, is a welcome victim in the bucket-shops. If he be a man or boy who works for his living he not only loses the money he has earned but loses more time than would be required to earn the same amount while he is idling about in Gamblers' Alley. He is sure to become a loafer, and is in great danger of becoming a thief. The bucket-shops are more polluting to youth than the avowed gambling-hells, because they are more accessible and retain the appearance of respectability. They are really accountable for a large part of the minor embezzlements and pilfering in business. They ought to be raided and closed by the police. But the suppression of such places will be more complete and enduring if the Board of Trade quotations can be withheld from them than it could be made through any other procedure. Let the good work go on. —*The Tribune*.

### REMINISCENCES OF THE OLD CHICAGO BOARD.

A visit to this city some time ago by Chas. H. Walker, at present a citizen of New Orleans, La., and the oldest surviving president of the Chicago Board of Trade, was made the occasion for interviews with the venerable ex-president, as also with Mr. Orrington Lunt, one of the survivors of the original organizers of the Board; and Mr. Murry Nelson, a more recent but very active member and director, who was intimately acquainted with the original membership. From these interviews many interesting reminiscences of the early history of the Board, which now stands almost unrivaled in power and wealth, and in its immense commanding influence on the grain and provision markets of the world; a point of such growing importance that Mr. Walker, looking back to the farthest past—a brief enough period for the growth of a great city—and from his present distant home in the South, said, as his closing utterance, to be repeated: "I prophesy, knowing fully what I say, and welcoming the ridicule the statement may bring, that this will be the greatest city in the world."

Mr. Orrington Lunt is one of the twelve survivors of the original organizers of the Board in April, 1848, of whom twelve also are dead. The following are the names of the others: There survive, Gurdon S. Hubbard, Elisha S. Wadsworth, Thomas Richmond, Horatio G. Loomis, John H. Dunham, Walter S. Gurney, Josiah H. Reed, Edward K. Rogers, Isaac H. Burch, Augustus H. Burley, Lauren P. Hilliard. And the deceased are—Messrs. John Rogers, George F. Foster, Richard C. Bristol, Thomas Dyer, George A. Gibbs, John H. Kinzie, Cyrenus Beers, John S. Read, William B. Ogden, Thomas Hale, Edward H. Haddock, Ira V. Germain. Only three of these are still members of the Board, and one of these is the father-in-law of present Hon. Carter Harrison, our mayor. He was never a very active member; but is a man of great wealth, owing some of the finest business property in this city. Julian S. Rumsey, universally known for his intense activity, is another of these three; Thomas Parker, a resident of Oconomowoc, Wis., now enjoying his *otium cum dignitate*, as well as the luxuries of wealth and taste, is the other one. The original membership was eighty-two, of most of whom Mr. Lunt retains a vivid recollection, and gave many gossip accounts of the incidents of their board associations. Mr. Lunt himself is now a resident of Evanston, Ill., having dropped his connection with the Board in 1862, and he is one of the financial pillars of the Northwest, especially of the educational institutions of that city, being present at the laying of the corner stone of the Northwestern University as a director, and a munificent patron. As to the tendencies of this extensive business life and its excitements, Mr. Lunt said that it all depended on the temperament of the individual, and whether he could throw off in his intervals of rest all care and worry, sleep soundly and digest his food thoroughly.

Gurdon S. Hubbard, he said, came to Chicago the earliest of any one, seemingly then old, and yet he looks even now young and hale. In reply to the question, Mr. Lunt said that none of the original members left sons who followed them on the Board except the first director and second president, Chas. Walker, whose son, Geo. C., is an active member now, and with whom his brother, Chas. H., referred to above, made his home while here. The senior Walker was far in advance of his time, the projector of railroads in Iowa and like schemes. His eldest son, Chas. H., succeeded him five years later, after having been the vice-president for one year with two years successive election to the presidency. Messrs. Wadsworth, Rogers and Hilliard, all successful men in banking, etc., are representatives of the success of nearly all the old charter members.

Most of the facts of the early history of the board, its narrow quarters in South Water street, its then several changes as the years went on, in the same street, the dull and unattended meetings; the cracker and cheese lunches, initiated to stimulate the business stomach, have been fully given to our readers in previous notices of the Board. The methods of marketing and handling

grain were extremely primitive and the nearest approach made to a corner was made by forestalling news of the market by horse express to Toledo; and yet large transactions were done, and proportionately large fortunes made, even then.

Mr. Murry Nelson came to the city at about the close of the first decade of the board's life. The board had the honor of enlisting a regiment in the early war period. Mr. Nelson said that the first corner was engineered by Old Hutch, who made a good thing, at about the time of his own entrance on the board. At that time, about 1857, the elections of the officers of the board had a somewhat political complexion, as John Dyer, the first president, was a candidate for mayor, running against John Wentworth. Geo. Armour got severely pounded, he said, by some roughs during the contest, while simply attending the polls and working for "Long John." The small beer lunch vanished very quickly in 1858 on the rapid development of business by the Rock Is and Railway Company. The markets were not, he said, as fluctuating then as now, while the largest single deal Mr. Nelson placed at about \$100,000.

The interesting reminiscences of ex-President Charles H. Walker covered the ground of the early history and various habitations of the board from its first dingy room over a flour store in South Water street to its present quarters of comparative grandeur, but dwarfed almost to insignificance by the \$1,500,000 structure, whose walls and towers already show the magnificence and beauty of the board's future home. After the fire, the board removed for a time to the West Side, on Canal, between Washington and Madison streets; but they soon returned to their previous location at the corner of Washington and LaSalle, which they had already purchased. The old ante-fire building, he said, cost some \$500,000; while the cost of the present Chamber of Commerce was \$750,000. This elegant residence was occupied in 1872, and the interesting and exciting reminiscences of the twelve succeeding years would fill volumes, but they are as familiar to the public as are all the reminiscences and movements of this post-bellum era. The ex-President closed his story with a facetious allusion to the ancient rivalry of St. Louis, at the earliest period. As he steamed down, in 1848, the then just opened canal, he presumed to buy grain at Chillicothe, just this side of Peoria, a region that the "town at the other end of the bridge," with about all of Illinois, considered her special preserve. The grain was in sacks on the levee, and, after purchase, was to be transferred to a boat for shipment to Chicago, whereupon the St. Louis captain of the steamer threatened to put Mr. Walker off the boat. All the same, the grain came, and was followed by many more boatloads thereafter.

### INDIA AS A WHEAT COUNTRY.

We observe that one of our exchanges devotes a large type leader to the subject of British India as a new wheat area, and dwells on the manner in which English writers unduly magnify the relative importance of that region as a wheat-producing, and especially as a wheat-exporting country. Our contemporary takes great comfort to itself in the fact that the railway mileage of India is less, so far as the wheat regions are concerned, than that of a single county in one of the American wheat-producing states. The same exchange, in subsequent issue, makes light of Australia as a wheat-producing region.—*The Miller*.

### STEAM ENGINES AT THE NEW ORLEANS EXPOSITION.

For several days Mr. E. A. Burke, the Director-General of the World's Exposition, New Orleans, has been engaged at the Palmer House, in this city, arranging for the power for the great main building and other details. He yesterday accepted proposals from the following engine builders:

	Horse power.
Cummers Engine Company.....	800
Cummers Engine Company.....	300
W. A. Harris.....	650
W. A. Harris.....	150
E. P. Allis & Co.....	500
Brown Engine Company.....	400
Robert Wetherill & Co.....	600
Armington & Sims.....	500
Westinghouse Machine Company.....	400
Taylor Manufacturing Company.....	200
Smith, Meyer & Schuer.....	200
Novelty Iron Works.....	200
Buckeye Engine Company.....	120
E. M. Ivers & Son.....	100
Lane & Bodley.....	75
Jerome Wheelock.....	250
Hoover, Owens & Rentschler.....	500

Total.....5,950  
Mr. Burke is also closing arrangements for boilers to supply over 6,000 horse-power, and for shafting amounting to nearly 12,000 feet in length. The Exposition management desire that all the leading manufacturers of engines, boilers, and shafting in the United States be represented.

A New Orleans commission house writes a St. Louis grain dealer: "At this season New Orleans has generally sold for July, August and September from 4,000,000 to 5,000,000 bushels of wheat, and present prices have usually been found cheap enough for business. This season there are no sales whatever, and it would require sixty days to prepare a fleet to take 2,000,000 bushels. If, now, your prices should drop to a parity of exporters' views we are none of us prepared to take any large quantity. The highest offer we have had figures out 84½ cents in St. Louis. We believe prices must go to about 80 cents with you for a free movement."



## THE HENNEPIN CANAL.

The defeat of the appropriation for the construction of the Hennepin canal is a most bitter disappointment to the people of Northern Illinois, Iowa and Nebraska, and is a sufficient justification for any measures of retaliation that these people may adopt toward the author of their misfortune. The bulk of the opposition, as usual, comes from the Eastern states and arises not from specific objections to the scheme itself, or the propriety of the work, but the mere fact that it is Western improvement. It is no argument to them to say that it reduces the cost of transportation on Western produce to the Eastern markets, because they vote and work on the principle that all public money should be expended in the East. We have not figured up the vote to know how far the Eastern hogs were aided by Southern idiots and Western fools, but they must have got that kind of help. The present Congress, like the last, is pervaded with the notion that the size of the river determines the amount which should be appropriated for its improvement, and the biggest rivers are to have their allotment first, leaving out all the feeders. It is a for unate circumstance, perhaps, that the biggest river is in the West, or the West would not get a cent. If the Mississippi from Cairo down was twice as wide and deep it would certainly swamp the United States Treasury for its improvement, while the Ohio, with a far greater commerce, would be left in a state of nature, and the Upper Mississippi would get even less than she does now, if that were possible. This new principle ought to be patented by its distinguished authors.

To recur to the canal. There is no doubt that the big railroad pool interested in the Chicago lines west were the real power which defeated the measure. It has been demonstrated that the Illinois canal has saved the farmers of Illinois more than ten times its cost and its saving as much more every twenty years. The Illinois Central tariffs on the lines along the canal are only about half as much as they are west where there is no canal. If the Hennepin canal was dug it would save half the freight which is now paid to three or four railroad lines, hence their agency in the matter. It is but a reasonable and patriotic hope that there is a time in the not distant future when this and many other equally meritorious measures will find a place on the statute books of the country.—*Mississippi Valley Lumberman.*

## UNIFORM COMMERCIAL PAPER.

Another important step toward this desirable result has recently been taken. The bill prepared by C. C. Bonney, of Chicago, for the American Banking Association, has been introduced in Congress by Judge Poland, of Vermont, read twice, referred to the Judiciary Committee, and ordered to be printed. This bill is drawn under the constitutional power of Congress to regulate commerce among the various states, and consists of a codification of the law of negotiable instruments substantially the same as that contained in the recent English act for the same purpose, with such changes and additions as seemed necessary or expedient to meet the requirements of the constitution and the commercial relations of this country. It was, of course, quite impracticable to have the bill reported for passage at the recent session, but an effort to that end will doubtless be made at the next meeting of Congress. Such a measure will, of course, require a good deal of discussion and effort to secure its success; but the advantages which would result to commercial interests throughout the country are so obvious and so great that a consideration of them ought to remove any opposition to the passage of the bill.

The pending bill, which is supposed to embrace a complete summary of all the essential points relating to negotiable instruments, would make only about fourteen pages of the national Revised Statutes. It hardly need be said that such a condensation of the law relating to bills of exchange, promissory notes, checks and other negotiable instruments, would be of immense value, not only to bankers and merchants, but also to the legal profession and the courts. The bill contemplates the suspension of the various state laws relating to commercial paper, and the substitution for them of one law of the United States in substantially the same manner as the state laws relating to the bills of state banks were suspended, and exclusive circulation of national bank notes secured. The fact that a bank bill is only the promissory note of the banking corporation, and that the Supreme Court of the United States has sustained the suppression of such notes in aid of the national currency provided for by the National Bank Act, really covers the whole subject, both of the power of Congress and the expediency of its exercise.

From the sections of the bill which are of the most general interest the following are selected:

Section 1. To provide for the general welfare of the United States, and to carry into execution more fully than heretofore the power to regulate commerce among the several states, and to promote the security and efficiency of the national banks in their commercial transactions, all bills of exchange, promissory notes, checks on banks or bankers, and other negotiable instruments, are hereby declared to be means and instruments of commerce; and all such bills, notes, checks and instruments, made or dated on or after the date of the approval of this act, shall be governed exclusively by its provisions.

All laws and parts of laws of the several states, in anywise inconsistent with this act, are hereby suspended: Provided, only, that until Congress shall otherwise enact,

any such note, bill, check or other instrument, if both, made and payable within the limits of a single state may be issued under and governed by the laws of that state, in case the words "local paper" shall be plainly written or printed across the face thereof, but not otherwise; and all such notes, bills, checks and other instruments so marked as aforesaid shall be held void and of no effect if used in any transaction belonging to commerce among the several states.

Section 89. Bills of lading, warehouse receipts and receipts and orders for specific property are hereby declared to be means and instruments of commerce, and shall be governed by the rules of law relating to promissory notes so far as the same may be applicable thereto.

Mortgages and trust deeds securing negotiable paper shall be negotiable in like manner.

Section 90. Any bank, banker or other person who shall in good faith advance any money upon any bill of lading, warehouse receipt, chattel mortgage or order for personal property, or upon any mortgage or deed of trust of real estate, as collateral security for any bill of exchange, promissory note or check, or otherwise in due course of trade or commerce, shall be protected to the extent of such advance, in the property covered by the instrument, and in the proceeds thereof, as fully as though such advances had been made in due course and for value on a bill of exchange or promissory note only before the maturity thereof.

Section 91. All policies of insurance on property in or about its transportation in the course of commerce are also hereby declared to be means and instruments of commerce, and are hereby made negotiable in manner aforesaid.—*Rhodes' Journal of Banking.*

## BUFFALO'S GRAIN TRADE.

Mr. U. J. Livingston, grain inspector of the Merchants' Exchange, Buffalo, N. Y., on being interviewed recently by a reporter, who found him admiring a plump, elegant sample of new wheat from Kentucky, that he ascertained would weigh sixty-two pounds to the bushel, said that new wheat had commenced arriving there in small lots about the middle of July, and the shipments had increased steadily until at that time, early in August, it was coming from Ohio, Michigan, Illinois, and Missouri. He said that it was exceptionally fine, and he thinks the new crop will be much above the average in quality. He predicts a much more satisfactory season than last year, for which his reasons are that the amount of corn is now exceedingly small at that point, being only about 5,000,000 bushels. The American market, he said, requires about 32,000,000 bushels a month, and new corn will not begin to come in until October, so that, during the three months' interval corn must be left out of the count, and mill feed or other grain must supply its place. The wheat in store also aggregates less than usual at the opening of the season, and a brisk movement of the new crop is therefore necessitated. He expects to see corn go up to eighty cents before the end of the season, and a large improvement in the export demand. The trouble, he thought, with the foreign trade this past year, is that the crop was held mainly by speculators, who tossed it from one to another to stave off losses, and kept prices unnaturally high; many of them, as the result, got badly bitten.

As to the trade at Buffalo, Mr. Livingston said that the grading system there should be independent of the up-lake standards, and yet suited to the local wants; and that the attempt to make it rigid had succeeded as well as he had hoped. This office now knows to a pound all the grain received at that port, and, excepting two or three dealers, fixes the grades of all that is sold there. This simplifies the business, and he thinks will end in making Buffalo a grain market in a higher sense than it ever has been.

The inspector said that there was too much willingness to let the city remain a mere passing point instead of a distributing market for grain. He declares that Buffalo stands next to Chicago as naturally one of the finest grain distributing points; but, he says, the local dealers are afraid to fight for their position. The elevators that line the harbor, now comparatively valueless and used almost entirely as transfer houses, would by a true aggressive policy be brought into line as warehouses, and be greatly increased in value. He said that a stock of from 2,000,000 to 5,000,000 bushels of grain would be required, which, with good sales, ought to be turned over two or three times a month. All that is needed is courage and a steady hand to make this new departure a success. If the dealers of Buffalo, said Mr. Livingston, fail to do this, some one else will, for the field is obviously too good to lie idle waiting on timid home dealers.

## A BUCKET-SHOP INVENTION.

A Cleveland inventor has hit upon the exact idea. Commercial exchanges are apt to be occasionally dull. Trade will sometimes get into a rut and quotations will run along on a dead level for a long time. This knocks the life out of speculative business, which depends entirely upon fluctuations for its support. If there are no transactions, or if prices show no variations of consequence, the "market" becomes unsatisfactory for commission brokers, whose customers go in for a "quick turn." The Cleveland genius has evidently studied the question from an interested standpoint, has grappled with its difficulties, and has secured the pivotal idea, which is always the mark of an inventor of the very

first order of talent. His apparatus is intended for a grain exchange, but can be equally well adapted to a stock exchange or a metal exchange. It needs no telegraphic connection with distant points, and employs no correspondents in other trade centers, nor does it require the collection of statistics of production and stocks. Even arbitrators are not needed, and terms of settlement are never a matter of dispute.

The "enunciator," as the apparatus is called, is run by clockwork and heavy weights. These are wound up and business begins. The front of the machine is of plain japanned iron. In it are cut two slots. One is labeled "advance" and the other "decline." Back of the machine runs a long, narrow box, filled with cards printed "pork," "wheat," "oats," "corn," etc. Under each are small figures from  $\frac{1}{2}$  up. Every half minute the clock which surmounts the machine rings a bell, lifts a lever, the weight falls, and a card drops into one or the other of the slots, as luck may guide it. Bets are made, for instance, that oats will rise in price. The machinery revolves and a card lettered "oats  $\frac{1}{4}$ " drops into the "advance" slot. The better wins. Bets can be made every half minute, or 600 "deals" an hour. The machine is described as a beautiful piece of mechanism, and is perhaps costly. But its price could hardly be an impediment to its rapid introduction into general use for exchange purposes, considering its economical accompaniments as compared with the cumbersome and costly appointments of our regular exchanges, and we should expect the ingenious inventor to reap a very lucrative reward for his undoubtedly severe application in studying the principles of exchange practice. Unfortunately, however, our laws are somewhat discouraging for an inventor of this sort, as he is now languishing in a Cleveland jail on a charge of keeping gambling apparatus. This argues a grave defect in our civil polity. The individual who discovers and applies great principles, such as actuate enormous daily commercial movements, should be honored, not persecuted. His imprisonment and possible punishment savor of the dark ages, and are not characteristic of this age of inventive progress and commercial freedom—and exchanges.—*E. r.*

## BUSINESS LAW IN DAILY USE.

The following compilation of business law contains the essence of a large amount of legal verbiage:

If a note is lost or stolen it does not release the maker; he must pay it if the consideration for which it was given and the amount can be proven.

Notes bear interest only when so stated.

Principals are responsible for the acts of their agents. Each individual in a partnership is responsible for the whole amount of the debts of the firm, except in cases of special partnership.

Ignorance of the law excuses no one.

The law compels no one to do impossibilities.

An agreement without consideration is void.

A note made on Sunday is void.

Contracts made on Sunday cannot be enforced.

A note made by a minor is void.

A contract made with a minor is void.

A contract made with a lunatic is void.

A note obtained by fraud, or from a person in a state of intoxication, cannot be collected.

It is a fraud to conceal a fraud.

Signatures made with a pencil are good in law.

A receipt for money is not always conclusive.

The acts of one partner bind all the rest.

"Value received" is usually written in a note, and should be, but is not necessary. If not written, it is presumed by the law, or may be supplied by proof.

The maker of an "accommodation" bill or note (one for which he has received no consideration, having lent his name or credit for the accommodation of the holder) is bound to all other parties precisely as if there was a good consideration.

No consideration is sufficient in law if it be illegal in its nature.

Checks or drafts should be presented during business hours, but in this country, except in the case of banks, the time extends through the day and evening.

If the drawer of a check or draft has changed his residence, the holder must use all reasonable diligence to find him.

If one who holds a check as payee or otherwise, transfers it to another, he has a right to insist that the check be presented that day, or at farthest the day following.

A note endorsed in blank (the name of endorser only written) is transferable by delivery, the same as if made payable to bearer.

The time of payment of a note must not depend upon a contingency. The promise must be absolute.

A bill may be written upon any paper or substitute for it, either with ink or pencil.

The payee should be distinctly named in the note, unless it is payable to bearer.

An endorsee has a right of action against all whose names were on the bill when he received it.

If the letter containing a protest of non-payment be put into the postoffice, any miscarriage does not affect the party giving notice.

Notice of protest may be sent either to the place of business or of residence of the party notified.

An oral agreement must be proved by evidence. A written agreement proves itself. The law prefers written to oral evidence because of its precision.

No evidence may be introduced to contradict or vary a written contract; but it may be received in order to explain it when the contract is in need of explanation.



## THE NORTHWESTERN FARMERS AND THEIR GRIEVANCES.

At the Farmers' Convention, held at Moorhead, Minn., in July, a series of resolutions were adopted in effect as follows: The preamble sets forth that the producers of the new Northwest are now suffering from an imposition of extortionate freight rates for the transportation of grain, etc., and from other usurped powers of corporations, and therefore be it resolved, that this convention, representing a considerable portion of the agricultural industries of the Red River Valley is here assembled, demand, and will continue to confederate, agitate and demand such measures of relief from oppressive and unreasonable burdens as may be necessary to the prosperity of our people. The convention demands of the Northern Pacific, and the St. Paul, Minneapolis and Manitoba corporations that a reduction of five cents per bushel be immediately made on freight rates for the transportation of wheat from any and all points on the lines of said roads; which demand is within reason and equity. The farmers, mechanics, laboring and business men of this section are urged to select delegates to the county, district and state conventions of their respective parties who will give the people nominees who will work for their industries, thereby exercising the rights and duties of American citizens. It was also resolved that copies of the resolutions be officially sent to the above named corporations. The convention was addressed by Prof. Whitney, of the Michigan State Grange, and among others by Hon. S. G. Comstock, who had been sent for by a special committee to present the views of legislators. He stated that he was in sympathy with this movement, and would assist them in every way practicable, offering, if desired, to make one of a committee to visit the railway officials and try and secure the proposed reduction. The committee on legislation brought in a resolution recommending that a standing committee of five be appointed by the convention with instructions to formulate legislative measures for governing elevators, railroads and commissions as to the transportation, inspection and grading of grain, and other similar measures deemed desirable, and report at subsequent conventions to be held by the Red River Valley farmers. The resolution was adopted.

## Miscellaneous.

### WANTED.

To rent a warehouse, located on a side-track in Chicago, Ill. Address, with full particulars, "R.," care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

### WANTED.

The situation of superintendent or manager of an elevator in the West. Have had four years' experience in the grain business. Can give the best of references. Address "L," care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

## For Sale.

### ELEVATOR FOR SALE.

Of 10,000 bushel capacity. On the Lake City Branch of the Chicago & Northwestern Railroad. Good grain, coal, and stock business. Horse-power. Price, \$1,200. Address A. GRANT, Lake City, Iowa.

### A BARGAIN.

One new Hutchison Dustless Corn Sheller, capacity, from 75 to 100 bushels per hour. Regular price, \$125. Will deliver on board cars for \$90. Address ALPHA, care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

### WHO WANTS A BARGAIN?

Lease and machinery of warehouse for cleaning and mixing grain, in Chicago. Water and rail facilities. Storage capacity of 100,000 bushels. Eighteen horse-power engine and all necessary machinery. Have all the business they can do. Paying \$50 to \$75 per day. Price \$2,500.

AGNEW & Co., 154 La Salle St., Chicago, Ill.

### FOR SALE.

I offer my warehouse, office, scales, and coal bins for sale. Situated in a grain country. Warehouse has a capacity of 5,000 bushels. Have a fair trade in coal. Good reasons for selling; made known on application. For prices, etc., address

CHAS. L. FLINT, Havelock, Pocahontas Co., Iowa.

### FOR SALE.

One second-hand 8x12-inch cylinder horizontal side-draft engine, extra heavy. Complete, with Gardner Governor, band and fly-wheel, and oil cups. Is in A No. 1 order. Price \$525, with a new 20-horse power tubular boiler, complete, with front, grates, trimmings, stack, etc. Address

H. P. YALE & Co., Milwaukee, Wis.

### FOR SALE VERY CHEAP.

An 18,000 bushel steam elevator, built in 1882. Located in the village of Pelican Rapids, Minn., containing 800 inhabitants, on the St. P., M. & M. Railroad. Has a new Racine Separator, and is otherwise fully equipped. Has good patronage, and a good flour and feed trade. This is the best hard milling wheat district in the Northwest. Terms, \$1,200 cash; \$500 Sept. 1. This sacrifice and bargain is unprecedented. Reasons for selling and full particulars given on application Address

L. W. GRAY, box 167, Pelican Rapids, Minn.

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**ORDERS FOR CARGOES SOLICITED.**

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Careful attention given to Filling Option Orders.

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Returns prompt. Correspondence invited. Best market in the world on low grade corn. Charges for selling very small. References: First National Bank, Mechanics' National Bank, Peoria, National Bank, Callender, Ayres &amp; Co.'s Bank.

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Dealers in Grain and Provisions cannot afford to do without their carefully prepared and unequalled Crop Reports, which, with their Special Information indicating course of markets, have been verified in numberless cases, and which are freely furnished upon request.

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GENTLEMEN—After having used your *Victor Corn Sheller* and *No. 1 Improved Corn Cleaner* in our elevator for some six months, we wish to congratulate you upon furnishing the *ne plus ultra* of Corn Shellers and Cleaners.

We have never used the equal of the machines you furnished us. They do their work to our entire satisfaction. Very respectfully yours,

W. R. WEST &amp; CO.

BALTIMORE, MD., January 29, 1884.

Barnard &amp; Leas Mfg. Co., Moline, Ill.:

GENTLEMEN—Your draft in payment of No. 3 Warehouse Separator and Grader purchased of you, was presented several days ago, and paid. The machine gives us great satisfaction, and we unhesitatingly say that we believe it to be the *best* one in the market for cleaning and grading *all kinds* of grain. We shall take pleasure in recommending it to any one wanting such a machine. Our only regret is that we did not get one of double the capacity. Very respectfully,

SWIFT &amp; LUCY.

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Box 880, KANSAS CITY, MO.

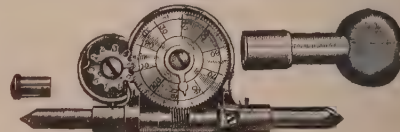
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OFFICE OF MANUFACTURERS & MERCHANTS'  
MUTUAL INSURANCE Co., Rockford, Ill.  
ROCKFORD, ILL., Aug. 4, 1884.

Marcus Ruthenburg, Esq., Cincinnati, O.:

DEAR SIR—Your postal of Aug. 1, relating to the fire in G. Y. Roots &amp; Co.'s flour mill is just received and I hasten to congratulate both you and the mill company—you on the success of your devices, and Messrs. Roots &amp; Co. on their escaping a heavy loss and also on their courage and judgment in being the first to apply automatic sprinklers in flour mills, when almost every man opposed them as inapplicable to that class of hazards. This will, I trust, help the insurance companies to see their way to a small profit on flour mill business in the future. Very truly yours, GEORGE S. ROPER.

Secretary.

CHURCH'S PATENT IMPROVED  
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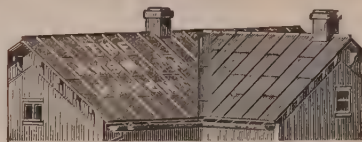
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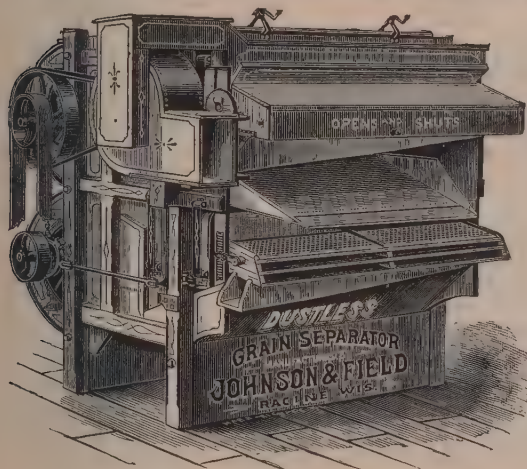
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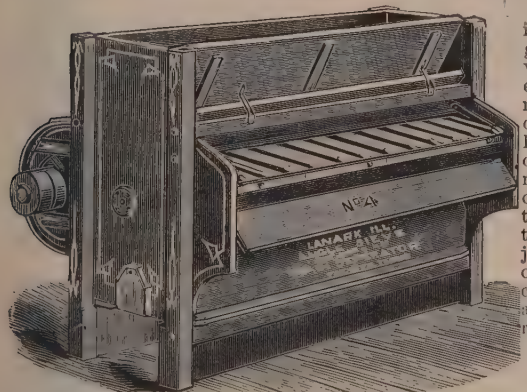
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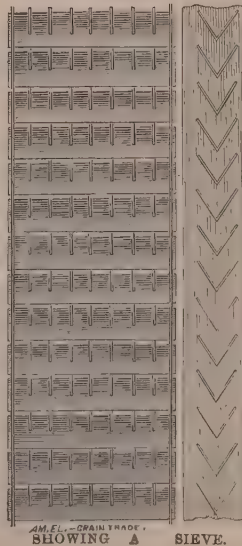


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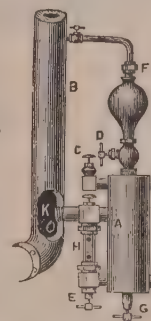
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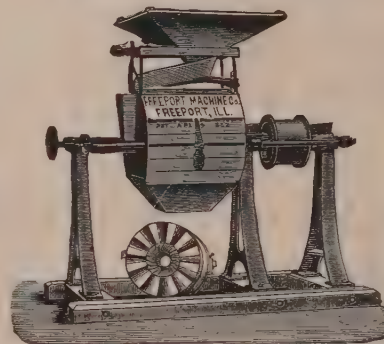
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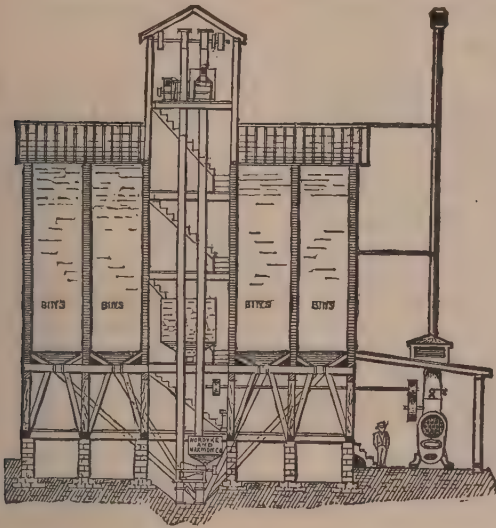
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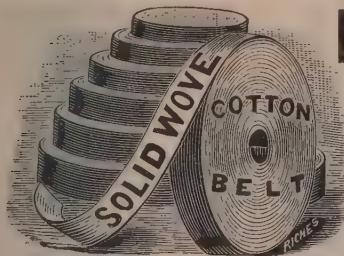
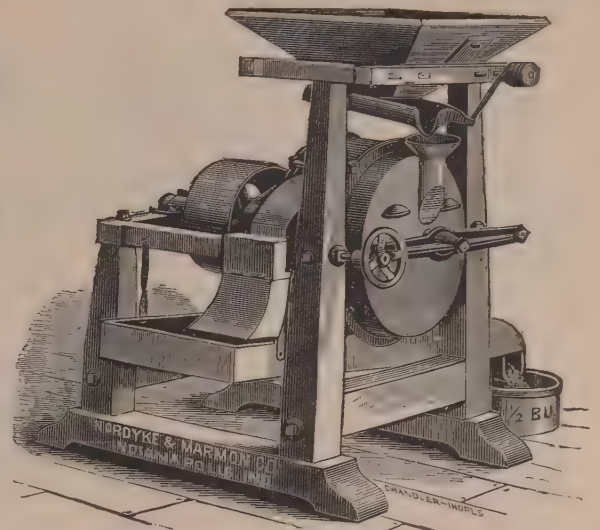
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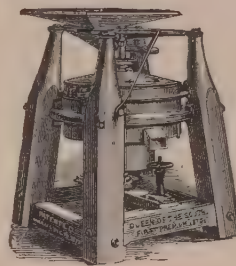
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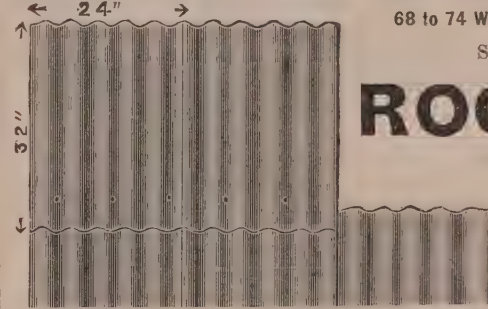
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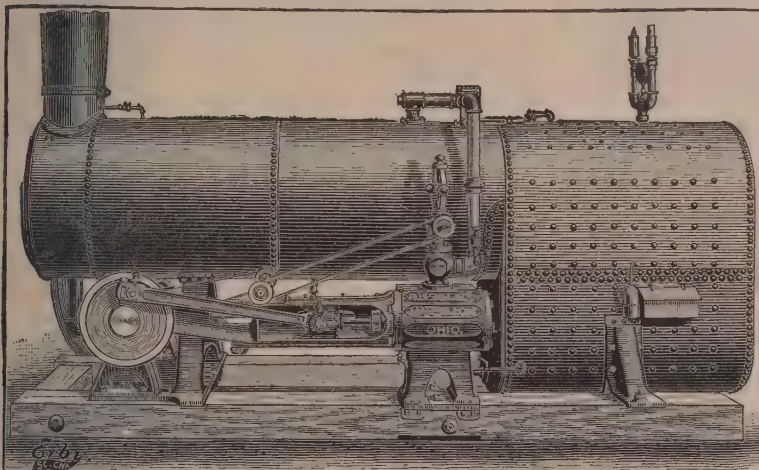
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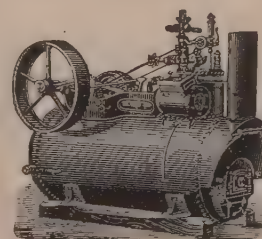
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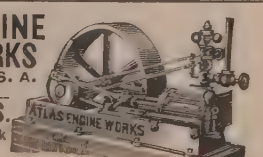
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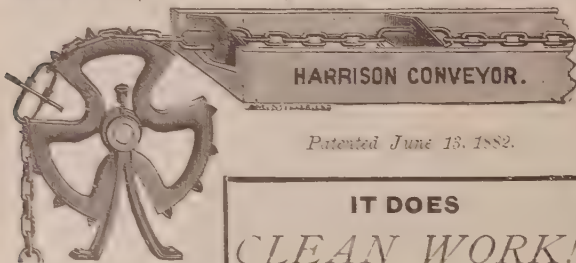
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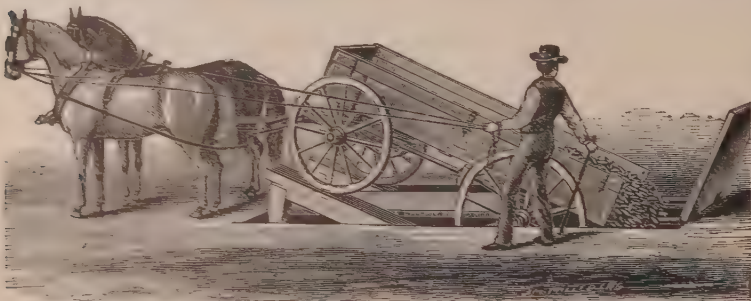
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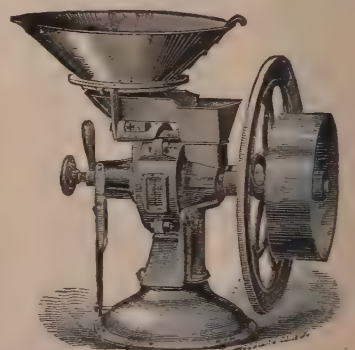


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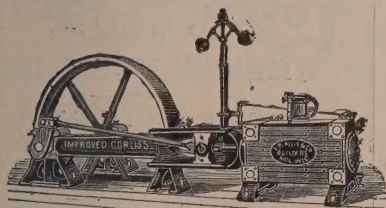
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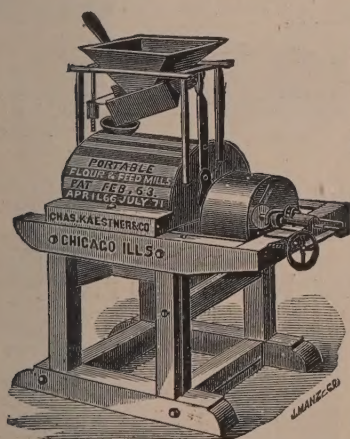
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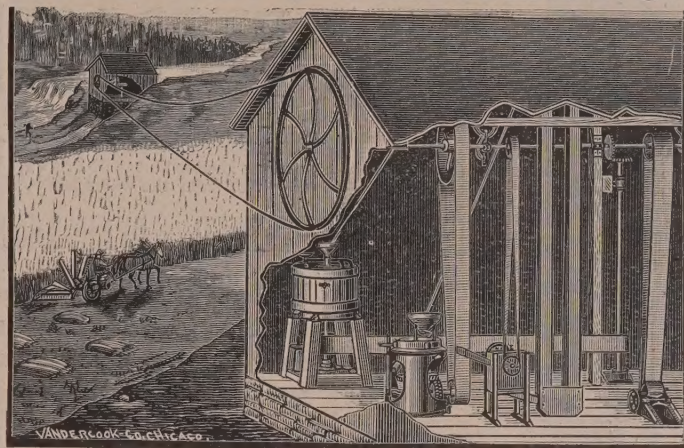
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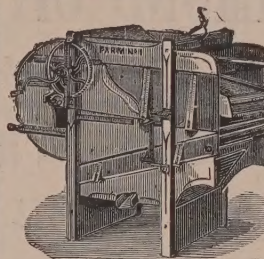
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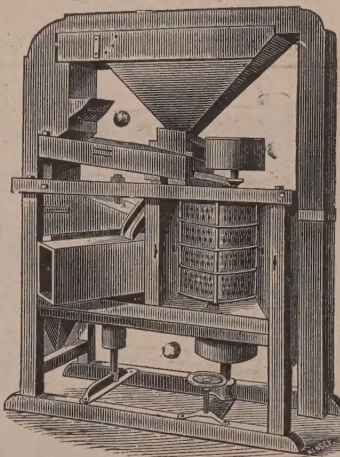
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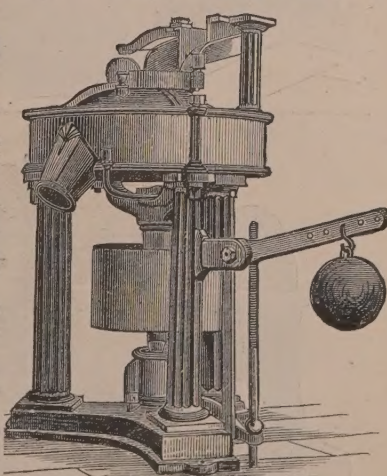
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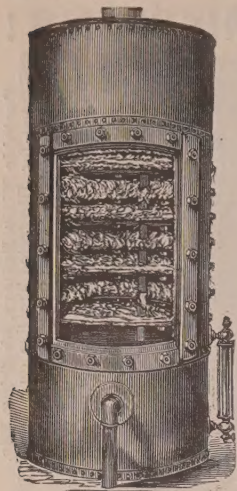
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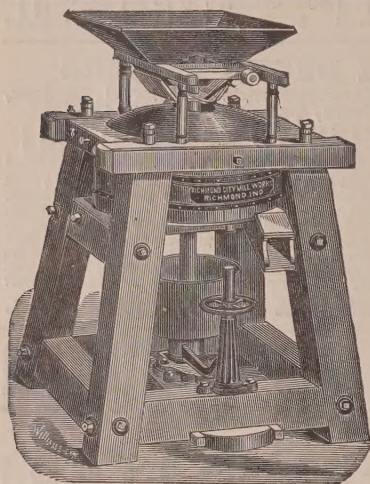
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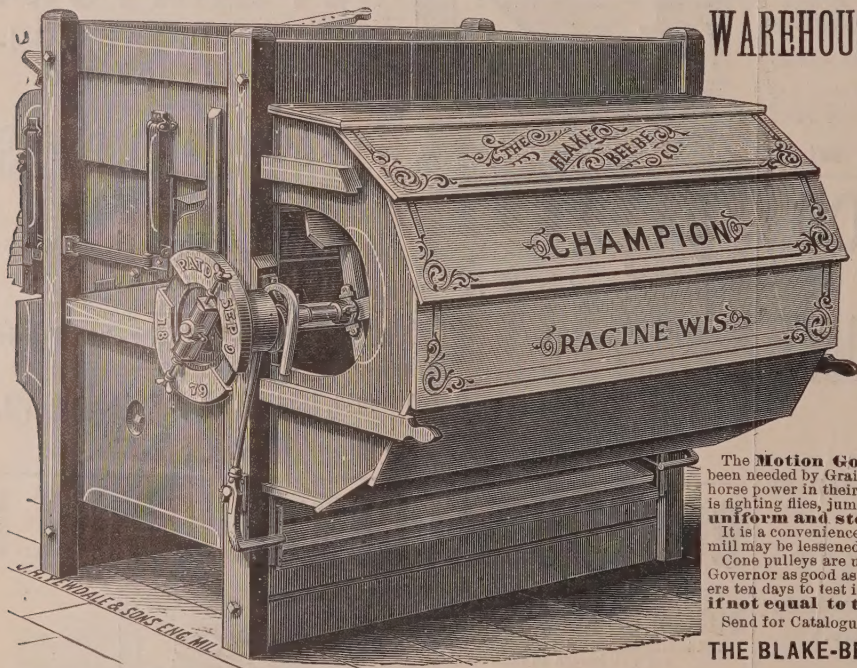
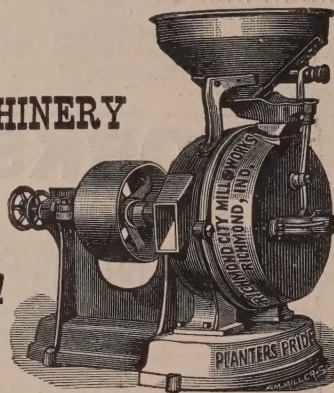
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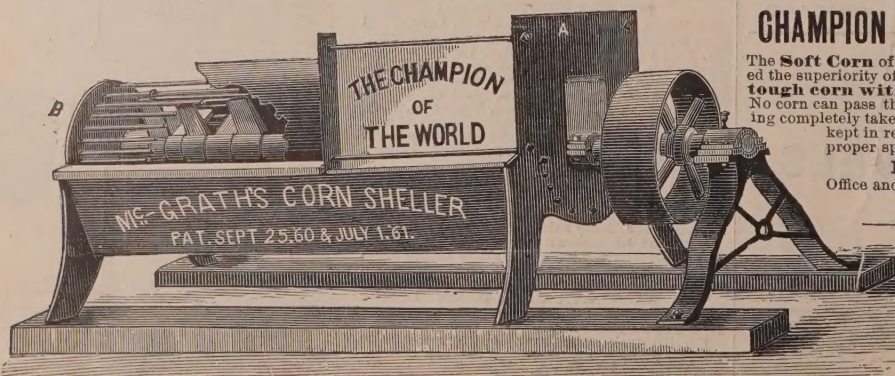
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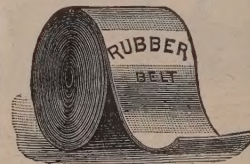


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
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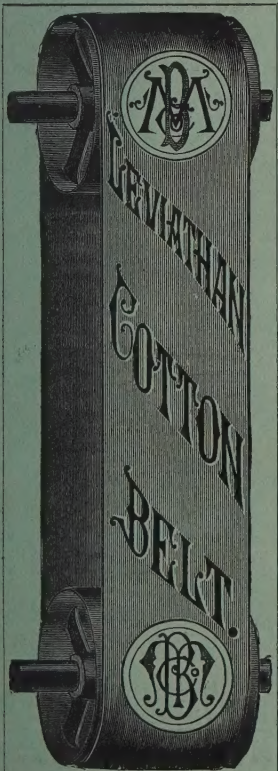
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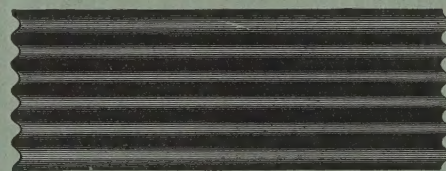
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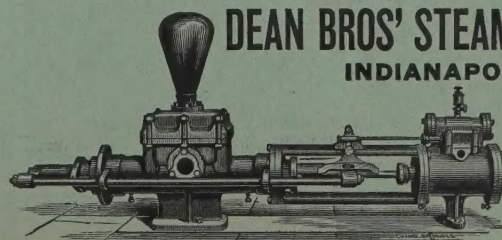
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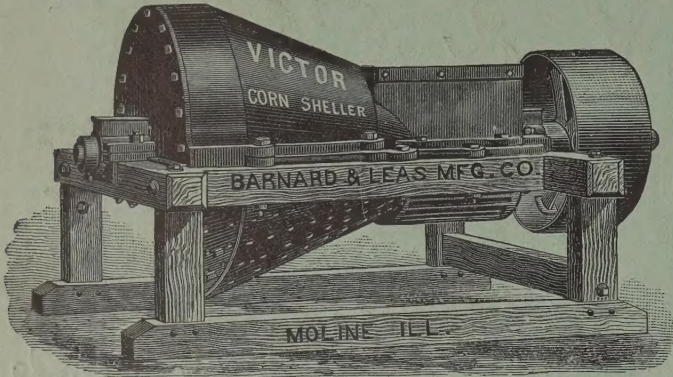
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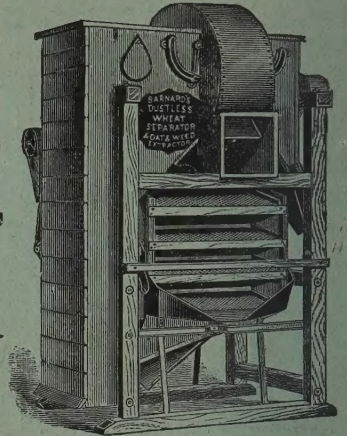
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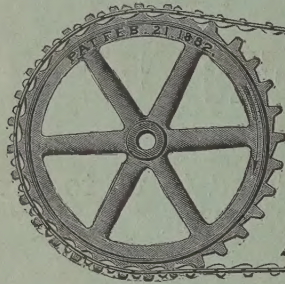
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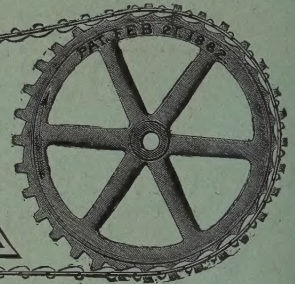
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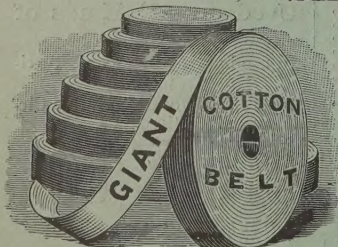
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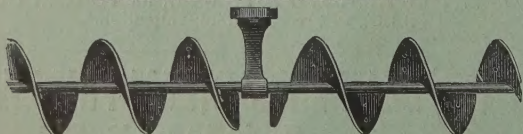
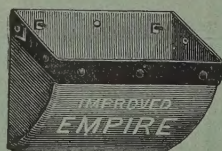
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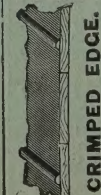
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